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Upstream-Name: liblz4

Upstream-Contact: Yann Collet <Cyan4973@github.com>

Source: <https://github.com/lz4/lz4>

Files: *

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```

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```
import (
    "context"
    "io"
    "net/http"
```

```

"strconv"
"strings"
)

func newLicensePostFunc(t Transport) LicensePost {
    return func(o
...func(*LicensePostRequest)) (*Response, error) {
    var r = LicensePostRequest{}
    for _, f := range o {
        f(&r)
    }
    return r.Do(r.ctx, t)
}
}

// ----- API Definition -----

// LicensePost - Updates the license for the cluster.
//
// See full documentation at https://www.elastic.co/guide/en/elasticsearch/reference/master/update-license.html.
type LicensePost func(o ...func(*LicensePostRequest)) (*Response, error)

// LicensePostRequest configures the License Post API request.
type LicensePostRequest struct {
    Body io.Reader

    Acknowledge *bool

    Pretty    bool
    Human     bool
    ErrorTrace bool
    FilterPath []string

    Header http.Header

    ctx context.Context
}

// Do executes the request and returns response or error.
func (r LicensePostRequest) Do(ctx context.Context, transport Transport) (*Response, error) {
    var (
        method string
        path    strings.Builder
        params  map[string]string
    )

    method = "PUT"

```

```

path.Grow(len("/_license"))
path.WriteString("/_license")

params
= make(map[string]string)

if r.Acknowledge != nil {
    params["acknowledge"] = strconv.FormatBool(*r.Acknowledge)
}

if r.Pretty {
    params["pretty"] = "true"
}

if r.Human {
    params["human"] = "true"
}

if r.ErrorTrace {
    params["error_trace"] = "true"
}

if len(r.FilterPath) > 0 {
    params["filter_path"] = strings.Join(r.FilterPath, ",")
}

req, err := newRequest(method, path.String(), r.Body)
if err != nil {
    return nil, err
}

if len(params) > 0 {
    q := req.URL.Query()
    for k, v := range params {
        q.Set(k, v)
    }
    req.URL.RawQuery = q.Encode()
}

if len(r.Header) > 0 {
    if len(req.Header) == 0 {
        req.Header = r.Header
    } else {
        for k, vv := range r.Header {
            for _, v := range vv {
                req.Header.Add(k, v)
            }
        }
    }
}

```

```

    }
}

if r.Body != nil && req.Header.Get(headerContentType) == "" {
    req.Header[headerContentType] = headerContentTypeJSON
}

if ctx != nil {
    req = req.WithContext(ctx)
}

res, err
:= transport.Perform(req)
if err != nil {
    return nil, err
}

response := Response{
    StatusCode: res.StatusCode,
    Body:      res.Body,
    Header:    res.Header,
}

return &response, nil
}

// WithContext sets the request context.
func (f LicensePost) WithContext(v context.Context) func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        r.ctx = v
    }
}

// WithBody - licenses to be installed.
func (f LicensePost) WithBody(v io.Reader) func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        r.Body = v
    }
}

// WithAcknowledge - whether the user has acknowledged acknowledge messages (default: false).
func (f LicensePost) WithAcknowledge(v bool) func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        r.Acknowledge = &v
    }
}

// WithPretty makes the response body pretty-printed.

```

```

func (f LicensePost) WithPretty() func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        r.Pretty = true
    }
}

// WithHuman makes statistical values human-readable.
func
(f LicensePost) WithHuman() func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        r.Human = true
    }
}

// WithErrorTrace includes the stack trace for errors in the response body.
func (f LicensePost) WithErrorTrace() func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        r.ErrorTrace = true
    }
}

// WithFilterPath filters the properties of the response body.
func (f LicensePost) WithFilterPath(v ...string) func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        r.FilterPath = v
    }
}

// WithHeader adds the headers to the HTTP request.
func (f LicensePost) WithHeader(h map[string]string) func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
        for k, v := range h {
            r.Header.Add(k, v)
        }
    }
}

// WithOpaqueID adds the X-Opaque-Id header to the HTTP request.
func (f LicensePost) WithOpaqueID(s string) func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        {
            if r.Header == nil {
                r.Header = make(http.Header)
            }
            r.Header.Set("X-Opaque-Id", s)
        }
    }
}

```

```

    }
  }
  name: License headers

  on: [ pull_request ]

  jobs:
    build:

      runs-on: ubuntu-latest

      steps:
        - uses: actions/checkout@v2

        - name: Check license headers
          run: |
            ./github/check-license-headers.sh
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            //
            // Code generated from specification version 7.17.10: DO NOT EDIT

package esapi

import (
    "context"
    "net/http"
    "strings"
)

func newLicenseGetBasicStatusFunc(t Transport) LicenseGetBasicStatus {
    return
    func(o ...func(*LicenseGetBasicStatusRequest)) (*Response, error) {
        var r = LicenseGetBasicStatusRequest{}
    }
}

```

```

    for _, f := range o {
        f(&r)
    }
    return r.Do(r.ctx, t)
}
}

// ----- API Definition -----

// LicenseGetBasicStatus - Retrieves information about the status of the basic license.
//
// See full documentation at https://www.elastic.co/guide/en/elasticsearch/reference/master/get-basic-status.html.
type LicenseGetBasicStatus func(o ...func(*LicenseGetBasicStatusRequest)) (*Response, error)

// LicenseGetBasicStatusRequest configures the License Get Basic Status API request.
type LicenseGetBasicStatusRequest struct {
    Pretty    bool
    Human     bool
    ErrorTrace bool
    FilterPath []string

    Header http.Header

    ctx context.Context
}

// Do executes the request and returns response or error.
func (r LicenseGetBasicStatusRequest) Do(ctx context.Context, transport Transport) (*Response, error) {
    var (
        method string
        path    strings.Builder
        params  map[string]string
    )

    method = "GET"

    path.Grow(len("/_license/basic_status"))
    path.WriteString("/_license/basic_status")

    params = make(map[string]string)

    if r.Pretty {
        params["pretty"] = "true"
    }

    if r.Human {
        params["human"] = "true"
    }

```



```

}

if r.ErrorTrace {
    params["error_trace"] = "true"
}

if len(r.FilterPath) > 0 {
    params["filter_path"] = strings.Join(r.FilterPath, ",")
}

req, err := newRequest(method, path.String(), nil)
if err != nil {
    return nil, err
}

if len(params) > 0 {
    q := req.URL.Query()
    for k, v := range params {
        q.Set(k, v)
    }
    req.URL.RawQuery = q.Encode()
}

if len(r.Header) > 0 {
    if len(req.Header) == 0 {
        req.Header = r.Header
    } else {
        for k, vv := range r.Header {
            for _, v := range vv {
                req.Header.Add(k, v)
            }
        }
    }
}

if ctx != nil {
    req = req.WithContext(ctx)
}

res, err := transport.Perform(req)
if err != nil {
    return nil, err
}

response := Response{
    StatusCode: res.StatusCode,
    Body:

```

```

    res.Body,
    Header: res.Header,
}

return &response, nil
}

// WithContext sets the request context.
func (f LicenseGetBasicStatus) WithContext(v context.Context) func(*LicenseGetBasicStatusRequest) {
    return func(r *LicenseGetBasicStatusRequest) {
        r.ctx = v
    }
}

// WithPretty makes the response body pretty-printed.
func (f LicenseGetBasicStatus) WithPretty() func(*LicenseGetBasicStatusRequest) {
    return func(r *LicenseGetBasicStatusRequest) {
        r.Pretty = true
    }
}

// WithHuman makes statistical values human-readable.
func (f LicenseGetBasicStatus) WithHuman() func(*LicenseGetBasicStatusRequest) {
    return func(r *LicenseGetBasicStatusRequest) {
        r.Human = true
    }
}

// WithErrorTrace includes the stack trace for errors in the response body.
func (f LicenseGetBasicStatus) WithErrorTrace() func(*LicenseGetBasicStatusRequest) {
    return func(r *LicenseGetBasicStatusRequest) {
        r.ErrorTrace = true
    }
}

// WithFilterPath filters the properties of the
response body.
func (f LicenseGetBasicStatus) WithFilterPath(v ...string) func(*LicenseGetBasicStatusRequest) {
    return func(r *LicenseGetBasicStatusRequest) {
        r.FilterPath = v
    }
}

// WithHeader adds the headers to the HTTP request.
func (f LicenseGetBasicStatus) WithHeader(h map[string]string) func(*LicenseGetBasicStatusRequest) {
    return func(r *LicenseGetBasicStatusRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)

```

```

    }
    for k, v := range h {
        r.Header.Add(k, v)
    }
}
}

// WithOpaqueID adds the X-Opaque-Id header to the HTTP request.
func (f LicenseGetBasicStatus) WithOpaqueID(s string) func(*LicenseGetBasicStatusRequest) {
    return func(r *LicenseGetBasicStatusRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
        r.Header.Set("X-Opaque-Id", s)
    }
}

```

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```

```

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//
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package esapi

import (
    "context"
    "net/http"
    "strconv"
    "strings"
)

func newLicenseGetFunc(t Transport) LicenseGet {
    return func(o ...func(*LicenseGetRequest))
        (*Response, error) {
            var r = LicenseGetRequest{}
            for _, f := range o {
                f(&r)
            }
            return r.Do(r.ctx, t)
        }
    }

// ----- API Definition -----

// LicenseGet - Retrieves licensing information for the cluster
//
// See full documentation at https://www.elastic.co/guide/en/elasticsearch/reference/master/get-license.html.
type LicenseGet func(o ...func(*LicenseGetRequest)) (*Response, error)

// LicenseGetRequest configures the License Get API request.
type LicenseGetRequest struct {
    AcceptEnterprise *bool
    Local           *bool

    Pretty    bool
    Human     bool
    ErrorTrace bool
    FilterPath []string

    Header http.Header

    ctx context.Context
}

// Do executes the request and returns response or error.
func (r LicenseGetRequest) Do(ctx context.Context, transport Transport) (*Response, error) {

```



```

var (
    method string
    path strings.Builder
    params map[string]string
)

method = "GET"

path.Grow(len("/_license"))
path.WriteString("/_license")

params
= make(map[string]string)

if r.AcceptEnterprise != nil {
    params["accept_enterprise"] = strconv.FormatBool(*r.AcceptEnterprise)
}

if r.Local != nil {
    params["local"] = strconv.FormatBool(*r.Local)
}

if r.Pretty {
    params["pretty"] = "true"
}

if r.Human {
    params["human"] = "true"
}

if r.ErrorTrace {
    params["error_trace"] = "true"
}

if len(r.FilterPath) > 0 {
    params["filter_path"] = strings.Join(r.FilterPath, ",")
}

req, err := newRequest(method, path.String(), nil)
if err != nil {
    return nil, err
}

if len(params) > 0 {
    q := req.URL.Query()
    for k, v := range params {
        q.Set(k, v)
    }
}

```

```

req.URL.RawQuery = q.Encode()
}

if len(r.Header) > 0 {
    if len(req.Header) == 0 {
        req.Header = r.Header
    } else {
        for k, vv := range r.Header {
            for _, v := range vv {
                req.Header.Add(k, v)
            }
        }
    }
}

if ctx != nil {
    req = req.WithContext(ctx)
}

res, err := transport.Perform(req)
if
err != nil {
    return nil, err
}

response := Response{
    StatusCode: res.StatusCode,
    Body:      res.Body,
    Header:   res.Header,
}

return &response, nil
}

// WithContext sets the request context.
func (f LicenseGet) WithContext(v context.Context) func(*LicenseGetRequest) {
    return func(r *LicenseGetRequest) {
        r.ctx = v
    }
}

// WithAcceptEnterprise - if the active license is an enterprise license, return type as 'enterprise' (default: false).
func (f LicenseGet) WithAcceptEnterprise(v bool) func(*LicenseGetRequest) {
    return func(r *LicenseGetRequest) {
        r.AcceptEnterprise = &v
    }
}

```

```

// WithLocal - return local information, do not retrieve the state from master node (default: false).
func (f LicenseGet) WithLocal(v bool) func(*LicenseGetRequest) {
    return func(r *LicenseGetRequest) {
        r.Local = &v
    }
}

// WithPretty makes the response body pretty-printed.
func (f LicenseGet) WithPretty() func(*LicenseGetRequest) {
    return func(r *LicenseGetRequest) {
        r.Pretty = true
    }
}

//
// WithHuman makes statistical values human-readable.
func (f LicenseGet) WithHuman() func(*LicenseGetRequest) {
    return func(r *LicenseGetRequest) {
        r.Human = true
    }
}

// WithErrorTrace includes the stack trace for errors in the response body.
func (f LicenseGet) WithErrorTrace() func(*LicenseGetRequest) {
    return func(r *LicenseGetRequest) {
        r.ErrorTrace = true
    }
}

// WithFilterPath filters the properties of the response body.
func (f LicenseGet) WithFilterPath(v ...string) func(*LicenseGetRequest) {
    return func(r *LicenseGetRequest) {
        r.FilterPath = v
    }
}

// WithHeader adds the headers to the HTTP request.
func (f LicenseGet) WithHeader(h map[string]string) func(*LicenseGetRequest) {
    return func(r *LicenseGetRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
        for k, v := range h {
            r.Header.Add(k, v)
        }
    }
}

```

```

// WithOpaqueID adds the X-Opaque-Id header to the HTTP request.
func (f LicenseGet) WithOpaqueID(s string) func(*LicenseGetRequest)
{
return func(r *LicenseGetRequest) {
if r.Header == nil {
r.Header = make(http.Header)
}
r.Header.Set("X-Opaque-Id", s)
}
}

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package esapi

import (

```

```

"context"
"net/http"
"strings"
)

func newLicenseDeleteFunc(t Transport) LicenseDelete {
return func(o ...func(*LicenseDeleteRequest))
(*Response, error) {
var r = LicenseDeleteRequest{}
for _, f := range o {
f(&r)
}
return r.Do(r.ctx, t)
}
}

// ----- API Definition -----

// LicenseDelete - Deletes licensing information for the cluster
//
// See full documentation at https://www.elastic.co/guide/en/elasticsearch/reference/master/delete-license.html.
type LicenseDelete func(o ...func(*LicenseDeleteRequest)) (*Response, error)

// LicenseDeleteRequest configures the License Delete API request.
type LicenseDeleteRequest struct {
Pretty bool
Human bool
ErrorTrace bool
FilterPath []string

Header http.Header

ctx context.Context
}

// Do executes the request and returns response or error.
func (r LicenseDeleteRequest) Do(ctx context.Context, transport Transport) (*Response, error) {
var (
method string
path strings.Builder
params map[string]string
)

method = "DELETE"

path.Grow(len("/_license"))
path.WriteString("/_license")

```

```

params
= make(map[string]string)

if r.Pretty {
    params["pretty"] = "true"
}

if r.Human {
    params["human"] = "true"
}

if r.ErrorTrace {
    params["error_trace"] = "true"
}

if len(r.FilterPath) > 0 {
    params["filter_path"] = strings.Join(r.FilterPath, ",")
}

req, err := newRequest(method, path.String(), nil)
if err != nil {
    return nil, err
}

if len(params) > 0 {
    q := req.URL.Query()
    for k, v := range params {
        q.Set(k, v)
    }
    req.URL.RawQuery = q.Encode()
}

if len(r.Header) > 0 {
    if len(req.Header) == 0 {
        req.Header = r.Header
    } else {
        for k, vv := range r.Header {
            for _, v := range vv {
                req.Header.Add(k, v)
            }
        }
    }
}

if ctx != nil {
    req = req.WithContext(ctx)
}

```

```

res, err := transport.Perform(req)
if err != nil {
    return nil, err
}

response := Response{
    StatusCode: res.StatusCode,
    Body:      res.Body,
    Header:    res.Header,
}

return &response, nil
}

// WithContext sets the request context.
func
(f LicenseDelete) WithContext(v context.Context) func(*LicenseDeleteRequest) {
return func(r *LicenseDeleteRequest) {
    r.ctx = v
}
}

// WithPretty makes the response body pretty-printed.
func (f LicenseDelete) WithPretty() func(*LicenseDeleteRequest) {
return func(r *LicenseDeleteRequest) {
    r.Pretty = true
}
}

// WithHuman makes statistical values human-readable.
func (f LicenseDelete) WithHuman() func(*LicenseDeleteRequest) {
return func(r *LicenseDeleteRequest) {
    r.Human = true
}
}

// WithErrorTrace includes the stack trace for errors in the response body.
func (f LicenseDelete) WithErrorTrace() func(*LicenseDeleteRequest) {
return func(r *LicenseDeleteRequest) {
    r.ErrorTrace = true
}
}

// WithFilterPath filters the properties of the response body.
func (f LicenseDelete) WithFilterPath(v ...string) func(*LicenseDeleteRequest) {
return func(r *LicenseDeleteRequest) {
    r.FilterPath = v
}
}

```

```

}

// WithHeader adds the headers to the HTTP request.
func (f LicenseDelete)
WithHeader(h map[string]string) func(*LicenseDeleteRequest) {
return func(r *LicenseDeleteRequest) {
    if r.Header == nil {
        r.Header = make(http.Header)
    }
    for k, v := range h {
        r.Header.Add(k, v)
    }
}
}

// WithOpaqueID adds the X-Opaque-Id header to the HTTP request.
func (f LicenseDelete) WithOpaqueID(s string) func(*LicenseDeleteRequest) {
return func(r *LicenseDeleteRequest) {
    if r.Header == nil {
        r.Header = make(http.Header)
    }
    r.Header.Set("X-Opaque-Id", s)
}
}

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//
// Code generated from specification version 7.17.10: DO NOT EDIT

package esapi

import (
    "context"
    "net/http"

```



```

"strconv"
"strings"
)

func newLicensePostStartTrialFunc(t Transport) LicensePostStartTrial
{
return func(o ...func(*LicensePostStartTrialRequest)) (*Response, error) {
var r = LicensePostStartTrialRequest{}
for _, f := range o {
f(&r)
}
return r.Do(r.ctx, t)
}
}

// ----- API Definition -----

// LicensePostStartTrial - starts a limited time trial license.
//
// See full documentation at https://www.elastic.co/guide/en/elasticsearch/reference/master/start-trial.html.
type LicensePostStartTrial func(o ...func(*LicensePostStartTrialRequest)) (*Response, error)

// LicensePostStartTrialRequest configures the License Post Start Trial API request.
type LicensePostStartTrialRequest struct {
Acknowledge *bool
DocumentType string

Pretty bool
Human bool
ErrorTrace bool
FilterPath []string

Header http.Header

ctx context.Context
}

// Do executes the request and returns response or error.
func (r LicensePostStartTrialRequest) Do(ctx context.Context, transport Transport) (*Response, error) {
var (
method
string
path strings.Builder
params map[string]string
)

method = "POST"

```

```

path.Grow(len("/_license/start_trial"))
path.WriteString("/_license/start_trial")

params = make(map[string]string)

if r.Acknowledge != nil {
    params["acknowledge"] = strconv.FormatBool(*r.Acknowledge)
}

if r.DocumentType != "" {
    params["type"] = r.DocumentType
}

if r.Pretty {
    params["pretty"] = "true"
}

if r.Human {
    params["human"] = "true"
}

if r.ErrorTrace {
    params["error_trace"] = "true"
}

if len(r.FilterPath) > 0 {
    params["filter_path"] = strings.Join(r.FilterPath, ",")
}

req, err := newRequest(method, path.String(), nil)
if err != nil {
    return nil, err
}

if len(params) > 0 {
    q := req.URL.Query()
    for k, v := range params {
        q.Set(k, v)
    }
    req.URL.RawQuery = q.Encode()
}

if len(r.Header) > 0 {
    if len(req.Header) == 0 {
        req.Header = r.Header
    } else {
        for k, vv := range r.Header {
            for _, v := range vv {

```

```

    req.Header.Add(k, v)
  }
}
}

if
ctx != nil {
  req = req.WithContext(ctx)
}

res, err := transport.Perform(req)
if err != nil {
  return nil, err
}

response := Response{
  StatusCode: res.StatusCode,
  Body:      res.Body,
  Header:    res.Header,
}

return &response, nil
}

// WithContext sets the request context.
func (f LicensePostStartTrial) WithContext(v context.Context) func(*LicensePostStartTrialRequest) {
  return func(r *LicensePostStartTrialRequest) {
    r.ctx = v
  }
}

// WithAcknowledge - whether the user has acknowledged acknowledge messages (default: false).
func (f LicensePostStartTrial) WithAcknowledge(v bool) func(*LicensePostStartTrialRequest) {
  return func(r *LicensePostStartTrialRequest) {
    r.Acknowledge = &v
  }
}

// WithDocumentType - the type of trial license to generate (default: "trial").
func (f LicensePostStartTrial) WithDocumentType(v string) func(*LicensePostStartTrialRequest) {
  return func(r *LicensePostStartTrialRequest) {
    r.DocumentType = v
  }
}

// WithPretty

```

```

makes the response body pretty-printed.
func (f LicensePostStartTrial) WithPretty() func(*LicensePostStartTrialRequest) {
    return func(r *LicensePostStartTrialRequest) {
        r.Pretty = true
    }
}

// WithHuman makes statistical values human-readable.
func (f LicensePostStartTrial) WithHuman() func(*LicensePostStartTrialRequest) {
    return func(r *LicensePostStartTrialRequest) {
        r.Human = true
    }
}

// WithErrorTrace includes the stack trace for errors in the response body.
func (f LicensePostStartTrial) WithErrorTrace() func(*LicensePostStartTrialRequest) {
    return func(r *LicensePostStartTrialRequest) {
        r.ErrorTrace = true
    }
}

// WithFilterPath filters the properties of the response body.
func (f LicensePostStartTrial) WithFilterPath(v ...string) func(*LicensePostStartTrialRequest) {
    return func(r *LicensePostStartTrialRequest) {
        r.FilterPath = v
    }
}

// WithHeader adds the headers to the HTTP request.
func (f LicensePostStartTrial) WithHeader(h map[string]string) func(*LicensePostStartTrialRequest)
{
    return func(r *LicensePostStartTrialRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
        for k, v := range h {
            r.Header.Add(k, v)
        }
    }
}

// WithOpaqueID adds the X-Opaque-Id header to the HTTP request.
func (f LicensePostStartTrial) WithOpaqueID(s string) func(*LicensePostStartTrialRequest) {
    return func(r *LicensePostStartTrialRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
        r.Header.Set("X-Opaque-Id", s)
    }
}

```

```

}
}
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//
// Code generated from specification version 7.17.10: DO NOT EDIT

package esapi

import (
    "context"
    "net/http"
    "strings"
)

func newLicenseGetTrialStatusFunc(t Transport) LicenseGetTrialStatus {
    return
    func(o ...func(*LicenseGetTrialStatusRequest)) (*Response, error) {
        var r = LicenseGetTrialStatusRequest{}
        for _, f := range o {
            f(&r)
        }
        return r.Do(r.ctx, t)
    }
}

// ----- API Definition -----

// LicenseGetTrialStatus - Retrieves information about the status of the trial license.
//
// See full documentation at https://www.elastic.co/guide/en/elasticsearch/reference/master/get-trial-status.html.
type LicenseGetTrialStatus func(o ...func(*LicenseGetTrialStatusRequest)) (*Response, error)

// LicenseGetTrialStatusRequest configures the License Get Trial Status API request.

```

```

type LicenseGetTrialStatusRequest struct {
    Pretty    bool
    Human     bool
    ErrorTrace bool
    FilterPath []string

    Header http.Header

    ctx context.Context
}

// Do executes the request and returns response or error.
func (r LicenseGetTrialStatusRequest) Do(ctx context.Context, transport Transport) (*Response, error) {
    var (
        method string
        path    strings.Builder
        params  map[string]string
    )

    method = "GET"

    path.Grow(len("/_license/trial_status"))
    path.WriteString("/_license/trial_status")

    params = make(map[string]string)

    if r.Pretty {
        params["pretty"] = "true"
    }

    if r.Human {
        params["human"] = "true"
    }

    if r.ErrorTrace {
        params["error_trace"] = "true"
    }

    if len(r.FilterPath) > 0 {
        params["filter_path"] = strings.Join(r.FilterPath, ",")
    }

    req, err := newRequest(method, path.String(), nil)
    if err != nil {
        return nil, err
    }

```

```

if len(params) > 0 {
    q := req.URL.Query()
    for k, v := range params {
        q.Set(k, v)
    }
    req.URL.RawQuery = q.Encode()
}

if len(r.Header) > 0 {
    if len(req.Header) == 0 {
        req.Header = r.Header
    } else {
        for k, vv := range r.Header {
            for _, v := range vv {
                req.Header.Add(k, v)
            }
        }
    }
}

if ctx != nil {
    req = req.WithContext(ctx)
}

res, err := transport.Perform(req)
if err != nil {
    return nil, err
}

response := Response{
    StatusCode: res.StatusCode,
    Body:
        res.Body,
    Header:    res.Header,
}

return &response, nil
}

// WithContext sets the request context.
func (f LicenseGetTrialStatus) WithContext(v context.Context) func(*LicenseGetTrialStatusRequest) {
    return func(r *LicenseGetTrialStatusRequest) {
        r.ctx = v
    }
}

// WithPretty makes the response body pretty-printed.
func (f LicenseGetTrialStatus) WithPretty() func(*LicenseGetTrialStatusRequest) {

```

```

return func(r *LicenseGetTrialStatusRequest) {
    r.Pretty = true
}
}

// WithHuman makes statistical values human-readable.
func (f LicenseGetTrialStatus) WithHuman() func(*LicenseGetTrialStatusRequest) {
    return func(r *LicenseGetTrialStatusRequest) {
        r.Human = true
    }
}

// WithErrorTrace includes the stack trace for errors in the response body.
func (f LicenseGetTrialStatus) WithErrorTrace() func(*LicenseGetTrialStatusRequest) {
    return func(r *LicenseGetTrialStatusRequest) {
        r.ErrorTrace = true
    }
}

// WithFilterPath filters the properties of the
response body.
func (f LicenseGetTrialStatus) WithFilterPath(v ...string) func(*LicenseGetTrialStatusRequest) {
    return func(r *LicenseGetTrialStatusRequest) {
        r.FilterPath = v
    }
}

// WithHeader adds the headers to the HTTP request.
func (f LicenseGetTrialStatus) WithHeader(h map[string]string) func(*LicenseGetTrialStatusRequest) {
    return func(r *LicenseGetTrialStatusRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
        for k, v := range h {
            r.Header.Add(k, v)
        }
    }
}

// WithOpaqueID adds the X-Opaque-Id header to the HTTP request.
func (f LicenseGetTrialStatus) WithOpaqueID(s string) func(*LicenseGetTrialStatusRequest) {
    return func(r *LicenseGetTrialStatusRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
        r.Header.Set("X-Opaque-Id", s)
    }
}

```



```

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//
// Code generated from specification version 7.17.10: DO NOT EDIT

package esapi

import (
    "context"
    "net/http"
    "strconv"
    "strings"
)

func newLicensePostStartBasicFunc(t Transport) LicensePostStartBasic
{
    return func(o ...func(*LicensePostStartBasicRequest)) (*Response, error) {
        var r = LicensePostStartBasicRequest{}
        for _, f := range o {
            f(&r)
        }
        return r.Do(r.ctx, t)
    }
}

// ----- API Definition -----

// LicensePostStartBasic - Starts an indefinite basic license.
//
// See full documentation at https://www.elastic.co/guide/en/elasticsearch/reference/master/start-basic.html.
type LicensePostStartBasic func(o ...func(*LicensePostStartBasicRequest)) (*Response, error)

// LicensePostStartBasicRequest configures the License Post Start Basic API request.
type LicensePostStartBasicRequest struct {

```

Acknowledge *bool

Pretty bool

Human bool

ErrorTrace bool

FilterPath []string

Header http.Header

ctx context.Context

}

// Do executes the request and returns response or error.

func (r LicensePostStartBasicRequest) Do(ctx context.Context, transport Transport) (*Response, error) {

var (

method string

path strings.Builder

params

map[string]string

)

method = "POST"

path.Grow(len("/_license/start_basic"))

path.WriteString("/_license/start_basic")

params = make(map[string]string)

if r.Acknowledge != nil {

params["acknowledge"] = strconv.FormatBool(*r.Acknowledge)

}

if r.Pretty {

params["pretty"] = "true"

}

if r.Human {

params["human"] = "true"

}

if r.ErrorTrace {

params["error_trace"] = "true"

}

if len(r.FilterPath) > 0 {

params["filter_path"] = strings.Join(r.FilterPath, ",")

}

```

req, err := newRequest(method, path.String(), nil)
if err != nil {
    return nil, err
}

if len(params) > 0 {
    q := req.URL.Query()
    for k, v := range params {
        q.Set(k, v)
    }
    req.URL.RawQuery = q.Encode()
}

if len(r.Header) > 0 {
    if len(req.Header) == 0 {
        req.Header = r.Header
    } else {
        for k, vv := range r.Header {
            for _, v := range vv {
                req.Header.Add(k, v)
            }
        }
    }
}

if ctx != nil {
    req = req.WithContext(ctx)
}

res, err := transport.Perform(req)
if
err != nil {
    return nil, err
}

response := Response{
    StatusCode: res.StatusCode,
    Body:      res.Body,
    Header:    res.Header,
}

return &response, nil
}

// WithContext sets the request context.
func (f LicensePostStartBasic) WithContext(v context.Context) func(*LicensePostStartBasicRequest) {
    return func(r *LicensePostStartBasicRequest) {
        r.ctx = v
    }
}

```

```

}
}

// WithAcknowledge - whether the user has acknowledged acknowledge messages (default: false).
func (f LicensePostStartBasic) WithAcknowledge(v bool) func(*LicensePostStartBasicRequest) {
    return func(r *LicensePostStartBasicRequest) {
        r.Acknowledge = &v
    }
}

// WithPretty makes the response body pretty-printed.
func (f LicensePostStartBasic) WithPretty() func(*LicensePostStartBasicRequest) {
    return func(r *LicensePostStartBasicRequest) {
        r.Pretty = true
    }
}

// WithHuman makes statistical values human-readable.
func (f LicensePostStartBasic) WithHuman() func(*LicensePostStartBasicRequest) {
    return
    func(r *LicensePostStartBasicRequest) {
        r.Human = true
    }
}

// WithErrorTrace includes the stack trace for errors in the response body.
func (f LicensePostStartBasic) WithErrorTrace() func(*LicensePostStartBasicRequest) {
    return func(r *LicensePostStartBasicRequest) {
        r.ErrorTrace = true
    }
}

// WithFilterPath filters the properties of the response body.
func (f LicensePostStartBasic) WithFilterPath(v ...string) func(*LicensePostStartBasicRequest) {
    return func(r *LicensePostStartBasicRequest) {
        r.FilterPath = v
    }
}

// WithHeader adds the headers to the HTTP request.
func (f LicensePostStartBasic) WithHeader(h map[string]string) func(*LicensePostStartBasicRequest) {
    return func(r *LicensePostStartBasicRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
        for k, v := range h {
            r.Header.Add(k, v)
        }
    }
}

```

```

}
}

// WithOpaqueID adds the X-Opaque-Id header to the HTTP request.
func (f LicensePostStartBasic) WithOpaqueID(s string) func(*LicensePostStartBasicRequest)
{
return func(r *LicensePostStartBasicRequest) {
if r.Header == nil {
r.Header = make(http.Header)
}
r.Header.Set("X-Opaque-Id", s)
}
}
}

```

1.6 libmd 1.1.0-r0

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Files:

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src/sha2.c

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Files:

include/rmd160.h

src/rmd160.c

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Files:

man/rmd160.3

man/sha1.3

man/sha2.3

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Files:

man/mdX.3

src/helper.c

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src/md4.c

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Todd C. Miller modified the MD5 code to do MD4 based on RFC 1186.

Files:

include/md5.h

src/md5.c

Copyright:

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License: public-domain-md5

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The algorithm is due to Ron Rivest. This code was written by Colin Plumb in 1993, no copyright is claimed.

This code is in the public domain; do with it what you wish.

Files:

include/sha1.h

src/sha1.c

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1.7 zlib 1.3.1

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man/bitstring.3bsd
man/errc.3bsd
man/explicit_bzero.3bsd
man/fgetln.3bsd
man/fgetwln.3bsd
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man/wcsncpy.3bsd
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src/heapsort.c
src/merge.c
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man/humanize_number.3bsd
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src/arc4random_uniform.c

src/arc4random_unix.h

src/arc4random_win.h
src/closefrom.c
src/freezero.c
src/getentropy_aix.c
src/getentropy_bsd.c
src/getentropy_hpux.c
src/getentropy_hurd.c
src/getentropy_linux.c
src/getentropy_osx.c
src/getentropy_solaris.c
src/getentropy_win.c
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1.12 alpine-keys 2.5-r0

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pkgname=alpine-keys

pkgver=2.5

pkgrel=0

pkgdesc="Public keys for Alpine Linux packages"

url="https://alpinelinux.org"

we install arch specific keys to /etc so we cannot do arch=noarch

arch="all"

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1.13 pam 1.6.1-r1

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1.14 zlib 1.3.1-r2

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1.15 bash 5.2.37-r0

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1.16 pax-utils 1.3.8-r1

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1.18 utmps 0.1.2.3-r2

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1.19 ncurses 6.5_p20241006-r3

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1.21 iputils 20240905-r0

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1.22 shadow 4.16.0-r1

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Maintainer: Patrycja Rosa <alpine@ptrcnull.me>

pkgname=bsd-compat-headers

pkgver=0.7.2

pkgrel=6

pkgdesc="BSD compatibility headers (cdefs, queue, tree)"

url="https://gitlab.alpinelinux.org/alpine/aports"

arch="noarch"

license="BSD-2-Clause AND BSD-3-Clause"

source="

cdefs.h

queue.h

tree.h

"

builddir="\$srcdir"

options="!check" # just headers

package() {

mkdir -p "\$pkgdir"

install -Dm644 -t "\$pkgdir"/usr/include/sys \

cdefs.h queue.h tree.h

}

sha512sums="

37c8fc73c7aea7b490f7850927e2bb91d12137c9e59e22c084146d515696dbc7973b5de92f4c987ba080dd2502ba8312
7006442c3f019b6447a620c0cae73178 cdefs.h

2f0d5e6e4dc3350285cf17009265dddcbe12431c111868eea39bc8cb038ab7c1f2acacbb21735c4e9d4a1fd106a8fc0f86
11ea33987d4faba37dde5ce6da0750 queue.h

d9ac210d81feb8ad2655bc80fb065d3fe20ae4417b32b4a1711e6738a4870140005c13373b5d1846ef3ce5ae6da45f2da
cef2092881eded0a2e94f6a07752ef3 tree.h

"

Automatically generated by apkbuild-cpan, template 4

Contributor: Valery Kartel <valery.kartel@gmail.com>

Maintainer: Celeste <cielesti@protonmail.com>

maintainer="Celeste <cielesti@protonmail.com>"

pkgname=perl-bsd-resource

pkgver=1.2911

pkgrel=10

#_pkgreal is used by apkbuild-cpan to find modules at MetaCpan

_pkgreal=BSD-Resource

pkgdesc="Perl extension implements the BSD process resource limit functions"

url="https://metacpan.org/release/BSD-Resource/"

```

arch="all"
license="Artistic-2.0 OR LGPL-2.0"
depends="perl"
makedepends="perl-dev"
subpackages="$pkgname-doc"
source="https://cpan.metacpan.org/authors/id/J/JH/JHI/BSD-Resource-$pkgver.tar.gz"
builddir="$srcdir/$_pkgreal-$pkgver"

build() {
    export CFLAGS=$(perl -MConfig -E 'say $Config{ccflags}')
    PERL_MM_USE_DEFAULT=1 perl -I. Makefile.PL \
        INSTALLDIRS=vendor \
        NO_PACKLIST=1 \
        NO_PERLLOCAL=1
    make
}

check() {
    export CFLAGS=$(perl -MConfig -E 'say $Config{ccflags}')
    make test
}

package() {
    make DESTDIR="$pkgdir" install
}

sha512sums="
d0032d41c7c0468ed1c6d8f57b885f6cb97a5039d754c8cb60b2067daedaf53bd15fb6561a3d0f828df16dfa5417f663b
8065ba65f4fea16dc9262728b3b6b85
    BSD-Resource-1.2911.tar.gz
"

# Contributor: Fabian Affolter <fabian@affolter-engineering.ch>
# Maintainer: Fabian Affolter <fabian@affolter-engineering.ch>
pkgname=py3-flake8-copyright
_pkgname=flake8-copyright
pkgver=0.2.4
pkgrel=3
pkgdesc="Extension for flake8 which checks for copyrights"
options="!check" # No testsuite
url="https://github.com/savoirfairelinux/flake8-copyright"
arch="noarch"
license="MIT"
depends="py3-flake8 py3-setuptools"
makedepends="py3-gpep517 py3-wheel"
subpackages="$pkgname-pyc"
source="https://files.pythonhosted.org/packages/source/${_pkgname:0:1}/${_pkgname}/${_pkgname}-${pkgver}.tar.gz"
builddir="$srcdir"/$_pkgname-$pkgver

```

```

replaces="py-flake8-copyright"          # Backwards compatibility
provides="py-flake8-copyright=$pkgver-r$pkgrel" # Backwards compatibility

build() {
    gpep517 build-wheel \
        --wheel-dir .dist \
        --output-fd 3 3>&1 >&2
}

package() {
    gpep517 install-wheel --destdir "$pkgdir" \
        .dist/*.whl
}

sha512sums="
a6ab47e1bb715618f075c51f398e18180404871b3b0faf1c2d30701d5203db6bc23771bf22ffb5bafcd8ee856b9b64237
b316bd503ae7dceed6ca284ccd5a74d
    flake8-copyright-0.2.4.tar.gz
"

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pkgname=py3-license-expression
_pkgname=license_expression
pkgver=30.4.0
pkgrel=0
pkgdesc="Library to parse, compare, simplify and normalize license expressions"
url="https://github.com/nexB/license-expression"
arch="noarch"
license="Apache-2.0"
depends="python3 py3-boolean.py"
makedepends="py3-setuptools py3-setuptools_scm py3-gpep517 py3-wheel"
checkdepends="py3-pytest py3-pytest-xdist"
subpackages="$pkgname-pyc"
source="https://files.pythonhosted.org/packages/source/l/${_pkgname}/${_pkgname}-${pkgver}.tar.gz"
builddir="$srcdir/${_pkgname}-${pkgver}"

build() {
    gpep517 build-wheel \

```

```

--wheel-dir .dist \
--output-fd 3 3>&1 >&2
}

check() {
python3 -m venv --clear --without-pip --system-site-packages .testenv
.testenv/bin/python3 -m installer .dist/*.whl
.testenv/bin/python3 -m pytest
}

package() {
python3 -m installer -d "$pkgdir" \
.dist/*.whl
}

sha512sums="
cc7cd6b5bd8ea4c99b66f074871ffd7cc78b3e8b1b0d3afd9b95efdb7147c8293db2fac977d684fc34d3d60bd79066a06
dc2bff0a38b130d9d83c63538502db1
license_expression-30.4.0.tar.gz
"

# Contributor: Maxim Karasev <begs@disroot.org>
# Maintainer: mio <miyopan@e.email>
pkgname=bsd-games
pkgver=3.3
pkgrel=2
pkgdesc="traditional text mode games from BSD"
url="https://bsd-games.sourceforge.io/"
arch="all"
license="BSD-3-Clause"
install="$pkgname.post-install"
makedepends="ncurses-dev coreutils" # configure causes busybox expr error
subpackages="$pkgname-doc"
source="https://sourceforge.net/projects/bsd-games/files/bsd-games-$pkgver.tar.gz
0001-bsd-games-scores-dir.patch
"

options="!check" # no tests

build() {
# some GNU autoconf options are ignored, but it works
./configure \
--build=$CBUILD \
--host=$CHOST \
--prefix=/usr \
--sysconfdir=/etc \
--mandir=/usr/share/man \
--sourcedir=/usr/share/$pkgname
make
}

```

```

package() {
    make DESTDIR="$pkgdir" install
    install -Dm644 LICENSE "$pkgdir"/usr/share/licenses/bsd-games/LICENSE
}

sha512sums="
aaf36d09d4fe68514a5c279063d7e77a9a9a84c447037cba974b29faa07eb80c2aab2379d0699c196b5c27ffe1b2bb2c6
8d3390143e0e62d5e3d210ccfb61294
    bsd-games-3.3.tar.gz
e1def0d4835a877242c4173fae862e278a7858738e0bacacbb045a42bcabec2aa7c72d000bbd2421ce35fe66cdc1f52c0
577b7e278029ca5ed50f7aab22319f6 0001-bsd-games-scores-dir.patch
"

# Contributor: Carlo Landmeter <clandmeter@alpinelinux.org>
# Maintainer: Kevin Daudt <kdaudt@alpinelinux.org>
pkgname=spdx-licenses
pkgver=3.24.0
pkgrel=0
pkgdesc="Various data formats for the SPDX License List"
url="https://spdx.org/"
arch="noarch"
options="!check" # no test suite
license="CC-BY-3.0"
source="license-list-data-$pkgver.tar.gz::https://github.com/spdx/license-list-data/archive/v$pkgver.tar.gz"
builddir="$srcdir/license-list-data-$pkgver"
subpackages="$pkgname-list"

_types="html json rdfa rdfmt rdfturtle rdfxml template text"

for type in $_types; do
    subpackages="$subpackages $pkgname-$type:_subpkg"
done

package() {
    mkdir -p "$pkgdir"
}

_subpkg() {
    local type=${subpkgname/$pkgname-/}
    pkgdesc="$pkgdesc ($type)"
    install_if="$pkgname=$pkgver-r$pkgrel"
    mkdir -p "$subpkgdir"/usr/share/spdx
    cp -r "$builddir"/$type "$subpkgdir"/usr/share/spdx/
}

list() {
    pkgdesc="$pkgdesc (licence list)"
    mkdir -p "$subpkgdir"/usr/share/spdx

```

```

local i; for i in "$builddir"/text/*.txt;
do
  local license=${i##*/}
  echo ${license%.*} >> "$subpkgdir"/usr/share/spdx/license.lst
done
}

sha512sums="
6eb81424e1b3173dbd8e17859b2e15dfe1c2af8f4da59b7dad0729c038a4cbdba95c34c2c546285fcdbbd41562e39575e
6a6ebb9463b70121e0a12b99d1307e7  license-list-data-3.24.0.tar.gz
"

mini_sendmail - accept email on behalf of real sendmail

```

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1.23 librdkafka 2.6.1-r0

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src/rdxxhash.[ch] src/lz4*. [ch]: git@github.com:lz4/lz4.git 5ff839680134437dbf4678f3d0c7b371d84f4964

LZ4 Library

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parts of src/rdfnv1a.c: http://www.isthe.com/chongo/src/fnv/hash_32a.c

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By:

chongo <Landon Curt Noll> ^oo^

<http://www.isthe.com/chongo/>

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regexp.c and regexp.h from <https://github.com/ccxvii/minilibs> sha 875c33568b5a4aa4fb3dd0c52ea98f7f0e5ca684

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FindZstd.cmake: [git@github.com:facebook/folly](https://github.com/facebook/folly).git 87f1a403b49552dae75ae94c8610dd5979913477

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*/
```

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librdkafka - Apache Kafka C driver library

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From <https://github.com/tinycthread/tinycthread/README.txt> c57166cd510ffb5022dd5f127489b131b61441b9

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=====

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1.24 libncursesw 6.5_p20241006-r3

1.24.1 Available under license :

No license file was found, but licenses were detected in source scan.

ncurses 6.5 - patch 20241006 - Thomas E. Dickey

```

#
# -----
#
# Ncurses 6.5 is at
# https://invisible-island.net/archives/ncurses/
# https://invisible-mirror.net/archives/ncurses/
# https://ftp.gnu.org/gnu/ncurses/
#
# Patches for ncurses 6.5 can be found at
# https://invisible-island.net/archives/ncurses/6.5
# https://invisible-mirror.net/archives/ncurses/6.5
#
# -----
# https://invisible-island.net/archives/ncurses/6.5/ncurses-6.5-20241006.patch.gz
# patch by Thomas E. Dickey <dickey@invisible-island.net>
# created Sun Oct 6 23:44:01 UTC 2024
# -----
# NEWS | 6 +++
# VERSION | 2 -
# c++/cursesf.cc | 6 +--
# c++/cursesf.h
| 6 +--
# c++/cursesm.cc | 6 +--
# c++/cursesm.h | 6 +--
# c++/cursesp.cc | 6 +--
# c++/cursespad.cc | 6 +--
# c++/cursslk.cc | 12 +++-----
# c++/cursslk.h | 6 +--
# dist.mk | 4 +-
# misc/terminfo.src | 23 ++++++++--
# ncurses/base/lib_screen.c | 4 +-
# ncurses/base/new_pair.c | 4 +-
# ncurses/curses.priv.h | 4 +-
# ncurses/new_pair.h | 4 +-
# ncurses/tinfo/trim_sgr0.c | 7 +--
# ncurses/tty/lib_twait.c | 6 +--
# package/debian-mingw/changelog | 4 +-
# package/debian-mingw64/changelog | 4 +-
# package/debian/changelog | 4 +-
# package/mingw-ncurses.nsi | 4 +-
# package/mingw-ncurses.spec | 2 -
# package/ncurses.spec | 2 -
# package/ncurset.spec |
2 -
# test/blue.c | 10 +++---
# test/bs.c | 8 +--
# test/cardfile.c | 12 +++-----
# test/chgat.c | 6 +--

```

```

# test/clip_printw.c      |  8 ++--
# test/color_name.h      |  6 +--
# test/demo_defkey.c     |  4 +-
# test/demo_forms.c      | 22 ++++++-----
# test/demo_menus.c      | 32 ++++++++-----
# test/demo_new_pair.c   |  4 +-
# test/demo_panels.c     | 16 +++++-----
# test/demo_termcap.c    | 18 +++++-----
# test/demo_terminfo.c   | 18 +++++-----
# test/dots.c            |  6 +--
# test/dots_mvcur.c      |  6 +--
# test/dots_termcap.c    |  8 ++--
# test/dup_field.c       | 14 +++++-----
# test/filter.c          |  6 +--
# test/form_driver_w.c   |  6 +--
# test/gdc.c             | 10 +++---
# test/inch_wide.c       |  6 +--
# test/inchs.c           |  6 +--
# test/ins_wide.c        |  6 +--
# test/insdelln.c        |  8 ++--
# test/inserts.c         |  6 +--
# test/knight.c          |  7 ++--
# test/list_keys.c       |  8 ++--
# test/move_field.c      | 18 +++++-----
# test/movewindow.c      | 16 +++++-----
# test/ncurses.c         | 61 ++++++-----
# test/padview.c         | 12 +++-----
# test/parse_rgb.h       |  6 +--
# test/picsmap.c         | 14 +++++-----
# test/popup_msg.c       |  8 ++--
# test/popup_msg.h       |  6 +--
# test/railroad.c        |  6 +--
# test/rain.c            | 20 +++++-----
# test/redraw.c          |  6 +--
# test/savescreen.c      | 14 +++++-----
# test/tclock.c          |  4 +-
# test/test.priv.h       | 10 +++---
# test/test_add_wchstr.c  |  6 +--
# test/test_addchstr.c   |  6 +--
# test/test_addstr.c     |  6 +--
# test/test_addwstr.c    |  6 +--
# test/test_endwin.c     |  6 +--
# test/test_get_wstr.c   |  8 ++--
# test/test_getstr.c     |  8 ++--
# test/test_instr.c      |  8 ++--
# test/test_inwstr.c     |  8 ++--

```



```

# test/test_mouse.c      |  4 +-
# test/test_opaque.c     |  8 ++--
# test/test_sgr.c        | 26 ++++++-----
# test/test_tparm.c      | 12 +++----
# test/test_vidputs.c    |  6 +--
# test/testcurs.c        |  8 ++--
# test/testscanw.c       |  6 +--
# test/view.c            | 21 +++++-----
# 83 files changed, 392 insertions(+), 369 deletions(-)
# -----
Index: NEWS
Prereq:
  1.4185
--- ncurses-6.5-20240928+/NEWS 2024-09-28 20:27:44.000000000 +0000
+++ ncurses-6.5-20241006/NEWS 2024-10-06 08:53:45.000000000 +0000
@@ -26,7 +26,7 @@
-- sale, use or other dealings in this Software without prior written  --
-- authorization.                                         --
-----
--- $Id: NEWS,v 1.4185 2024/09/28 20:27:44 tom Exp $
+-- $Id: NEWS,v 1.4188 2024/10/06 08:53:45 tom Exp $
-----

```

This is a log of changes that ncurses has gone through since Zeyd started
@@ -46,6 +46,10 @@
Changes through 1.9.9e did not credit all contributions;
it is not possible to add this information.

```

+20241006
+ + fixes for compiler warnings/cppcheck.
+ + use xterm+alt+title in wezterm -TD
+
20240928
+ improve error-message from infocmp when a terminal entry cannot be
  opened (patch by Branden Robinson).
Index:
VERSION
--- ncurses-6.5-20240928+/VERSION 2024-09-28 09:53:21.000000000 +0000
+++ ncurses-6.5-20241006/VERSION 2024-10-06 08:53:45.000000000 +0000
@@ -1 +1 @@
-5:0:10 6.5 20240928
+5:0:10 6.5 20241006
Index: c++/cursesf.cc
Prereq: 1.26
--- ncurses-6.5-20240928+/c++/cursesf.cc 2021-04-17 18:11:08.000000000 +0000
+++ ncurses-6.5-20241006/c++/cursesf.cc 2024-10-05 22:47:12.000000000 +0000
@@ -1,6 +1,6 @@
// * this is for making emacs happy: -*-Mode: C++;-*-

```

```

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@@ -36,7 +36,7 @@
#include "cursesf.h"
#include "cursesapp.h"

-MODULE_ID("$Id: cursesf.cc,v 1.26 2021/04/17 18:11:08 tom Exp $")
+MODULE_ID("$Id: cursesf.cc,v 1.27 2024/10/05 22:47:12 tom Exp $")

NCursesFormField::~NCursesFormField () THROWS(NCursesException)
{
@@ -76,7 +76,7 @@

void NCursesForm::setDefaultAttributes()
{
- NCursesApplication* S = NCursesApplication::getApplication();
+ const NCursesApplication* S = NCursesApplication::getApplication();

    int n = count();
    if (n > 0) {
Index: c++/cursesf.h
Prereq: 1.39
--- ncurses-6.5-20240928+/c++/cursesf.h 2022-08-20 20:52:15.000000000 +0000
+++ ncurses-6.5-20241006+/c++/cursesf.h 2024-10-05 22:47:12.000000000 +0000
@@ -1,7 +1,7 @@
// * This makes emacs happy -*-Mode: C++;-*-
// vile:cppmode
/*****
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Foundation, Inc.          *
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@@ -33,7 +33,7 @@
* Author: Juergen Pfeifer, 1997          *
*****/

-// $Id: cursesf.h,v 1.39 2022/08/20 20:52:15 tom Exp $
+// $Id: cursesf.h,v 1.40 2024/10/05 22:47:12 tom Exp $

#ifndef NCURSES_CURSESF_H_incl
#define NCURSES_CURSESF_H_incl 1
@@ -384,7 +384,7 @@

```

```

}

inline void *get_user() {
-   UserHook* uptr = reinterpret_cast<UserHook*> (::form_userptr (form));
+   const UserHook* uptr = reinterpret_cast<UserHook*> (::form_userptr (form));
    assert (uptr != 0 && uptr->m_back==this && uptr->m_owner==form);
    return uptr->m_user;
}
Index: c++/cursesm.cc
Prereq: 1.27
--- ncurses-6.5-20240928+/c++/cursesm.cc 2021-04-17 18:11:08.000000000 +0000
+++ ncurses-6.5-20241006+/c++/cursesm.cc 2024-10-05
22:47:12.000000000 +0000
@@ -1,6 +1,6 @@
// * this is for making emacs happy: -*-Mode: C++;-*-
/*****
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*                                                              *
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@@ -36,7 +36,7 @@
#include "cursesm.h"
#include "cursesapp.h"

-MODULE_ID("$Id: cursesm.cc,v 1.27 2021/04/17 18:11:08 tom Exp $")
+MODULE_ID("$Id: cursesm.cc,v 1.28 2024/10/05 22:47:12 tom Exp $")

NCursesMenuItem::~NCursesMenuItem() THROWS(NCursesException)
{
@@ -168,7 +168,7 @@
void
NCursesMenu::setDefaultAttributes()
{
-   NCursesApplication* S = NCursesApplication::getApplication();
+
+   const NCursesApplication* S = NCursesApplication::getApplication();
    if (S) {
        ::set_menu_fore(menu, S->foregrounds());
        ::set_menu_back(menu, S->backgrounds());
Index: c++/cursesm.h
Prereq: 1.35
--- ncurses-6.5-20240928+/c++/cursesm.h 2022-08-20 20:52:15.000000000 +0000
+++ ncurses-6.5-20241006+/c++/cursesm.h 2024-10-05 22:47:12.000000000 +0000
@@ -1,6 +1,6 @@
// * This makes emacs happy -*-Mode: C++;-*-
/*****
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+

```

```

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@@ -32,7 +32,7 @@
* Author: Juergen Pfeifer, 1997 *
*****/

-// $Id: cursesm.h,v 1.35 2022/08/20 20:52:15 tom Exp $
+// $Id: cursesm.h,v 1.36 2024/10/05 22:47:12 tom Exp $

#ifndef NCURSES_CURSESM_H_incl
#define NCURSES_CURSESM_H_incl 1
@@ -245,7 +245,7 @@
}

inline void *get_user() {
- UserHook* uptr = STATIC_CAST(UserHook*)(::menu_userptr (menu));
+ const UserHook* uptr = STATIC_CAST(UserHook*)(::menu_userptr (menu));
assert (uptr != 0 && uptr->m_back==this && uptr->m_owner==menu);
return uptr->m_user;
}
Index: c++/cursesp.cc
Prereq: 1.27
--- ncurses-6.5-20240928+/c++/cursesp.cc 2020-02-02 23:34:34.000000000 +0000
+++ ncurses-6.5-20241006/c++/cursesp.cc 2024-10-05 22:47:12.000000000 +0000
@@ -1,6 +1,6 @@
// * this is for making emacs happy: *-Mode: C++;-*
/*****
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Thomas E. Dickey *
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@@ -35,7 +35,7 @@
#include "internal.h"
#include "cursesp.h"

-MODULE_ID("$Id: cursesp.cc,v 1.27 2020/02/02 23:34:34 tom Exp $")
+MODULE_ID("$Id: cursesp.cc,v 1.28 2024/10/05 22:47:12 tom Exp $")

NCursesPanel* NCursesPanel::dummy = static_cast<NCursesPanel*>(0);

@@ -64,7 +64,7 @@
void
NCursesPanel::redraw()
{

```

```

- PANEL *pan;
+ const PANEL *pan;

pan = ::panel_above(NULL);
while (pan) {
Index: c++/cursespad.cc
Prereq: 1.18
--- ncurses-6.5-20240928+/c++/cursespad.cc 2020-02-02 23:34:34.000000000 +0000
+++ ncurses-6.5-20241006/c++/cursespad.cc 2024-10-05 22:47:12.000000000 +0000
@@ -1,6 +1,6 @@
// * this is for making emacs happy: *-Mode: C++;-*
/*****
-
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@@ -36,7 +36,7 @@

#include <cursesw.h>

-MODULE_ID("$Id: cursespad.cc,v 1.18 2020/02/02 23:34:34 tom Exp $")
+MODULE_ID("$Id: cursespad.cc,v 1.19 2024/10/05 22:47:12 tom Exp $")

NCursesPad::NCursesPad(int nlines, int ncols)
: NCursesWindow(),
@@ -221,7 +221,7 @@
void NCursesFramedPad::OnOperation(int pad_req)
{
(void) pad_req;
- NCursesWindow* W = Win();
+ const NCursesWindow* W = Win();
NCursesWindow* W2 = getWindow();

if ((static_cast<NCursesWindow*>(0) != W) && (static_cast<NCursesWindow*>(0) != W2)) {
Index: c++/cursslk.cc
Prereq:
1.22
--- ncurses-6.5-20240928+/c++/cursslk.cc 2024-06-15 21:07:30.000000000 +0000
+++ ncurses-6.5-20241006/c++/cursslk.cc 2024-10-05 19:36:22.000000000 +0000
@@ -35,10 +35,10 @@
#include "internal.h"
#include "cursesapp.h"

-MODULE_ID("$Id: cursslk.cc,v 1.22 2024/06/15 21:07:30 tom Exp $")
+MODULE_ID("$Id: cursslk.cc,v 1.23 2024/10/05 19:36:22 tom Exp $")

```

```

Soft_Label_Key_Set::Soft_Label_Key&
- Soft_Label_Key_Set::Soft_Label_Key::operator=(char *text)
+ Soft_Label_Key_Set::Soft_Label_Key::operator=(const char *text)
{
    delete[] label;
    size_t need = 1 + ::strlen(text);
@@ -111,11 +111,11 @@

void Soft_Label_Key_Set::activate_label(int i, bool bf) {
    if (!b_attrInit) {
-   NCursesApplication* A = NCursesApplication::getApplication();
+   const NCursesApplication* A = NCursesApplication::getApplication();
        if (A) attrset(A->labels());
        b_attrInit = TRUE;
    }
-   Soft_Label_Key& K = (*this)[i];
+   const Soft_Label_Key& K = (*this)[i];
    if (ERR==::slk_set(K.num,bf?K.label:"",K.format))
        Error("slk_set");
    noutrefresh();
@@ -124,12 +124,12 @@
void Soft_Label_Key_Set::activate_labels(bool bf)
{
    if (!b_attrInit) {
-   NCursesApplication* A = NCursesApplication::getApplication();
+   const NCursesApplication* A = NCursesApplication::getApplication();
        if (A) attrset(A->labels());
        b_attrInit = TRUE;
    }
    for(int i=1; i <= num_labels; i++) {
-   Soft_Label_Key& K = (*this)[i];
+   const Soft_Label_Key& K = (*this)[i];
        if (ERR==::slk_set(K.num,bf?K.label:"",K.format))
            Error("slk_set");
    }
}
Index: c++/cursslk.h
Prereq: 1.19
--- ncurses-6.5-20240928+/c++/cursslk.h 2021-04-17 18:11:08.000000000 +0000
+++ ncurses-6.5-20241006/c++/cursslk.h 2024-10-05 22:47:12.000000000 +0000
@@ -1,7 +1,7 @@
// * this is for making emacs happy: -*-Mode: C++;-*-
// vile:cppmode
/*****
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    *
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    *

```

```

* Permission is hereby granted, free of charge, to any person obtaining a *
@@ -33,7 +33,7 @@
* Author: Juergen Pfeifer, 1997 *
*****/

-// $Id: cursslk.h,v 1.19 2021/04/17 18:11:08 tom Exp $
+// $Id: cursslk.h,v 1.20 2024/10/05 22:47:12 tom Exp $

#ifndef NCURSES_CURSSLK_H_incl
#define NCURSES_CURSSLK_H_incl
@@ -62,7 +62,7 @@

public:
    // Set the text of the Label
-   Soft_Label_Key& operator=(char *text);
+   Soft_Label_Key& operator=(const char *text);

    // Set the Justification of the Label
    Soft_Label_Key& operator=(Justification just) {
Index: dist.mk
Prereq: 1.1634
--- ncurses-6.5-20240928+/dist.mk 2024-09-28
09:53:21.000000000 +0000
+++ ncurses-6.5-20241006/dist.mk 2024-10-06 08:53:45.000000000 +0000
@@ -26,7 +26,7 @@
# use or other dealings in this Software without prior written      #
# authorization.                                                    #
#####
-# $Id: dist.mk,v 1.1634 2024/09/28 09:53:21 tom Exp $
+# $Id: dist.mk,v 1.1636 2024/10/06 08:53:45 tom Exp $
# Makefile for creating ncurses distributions.
#
# This only needs to be used directly as a makefile by developers, but
@@ -38,7 +38,7 @@
# These define the major/minor/patch versions of ncurses.
NCURSES_MAJOR = 6
NCURSES_MINOR = 5
-NCURSES_PATCH = 20240928
+NCURSES_PATCH = 20241006

# We don't append the patch to the version, since this only applies to releases
VERSION = $(NCURSES_MAJOR).$(NCURSES_MINOR)
Index: misc/terminfo.src
--- ncurses-6.5-20240928+/misc/terminfo.src 2024-09-07 16:23:31.000000000
+0000
+++ ncurses-6.5-20241006/misc/terminfo.src 2024-10-05 16:04:17.000000000 +0000
@@ -6,8 +6,8 @@
# Report bugs and new terminal descriptions to

```

```

# bug-ncurses@gnu.org
#
-# $Revision: 1.1150 $
-# $Date: 2024/09/07 16:23:31 $
+# $Revision: 1.1153 $
+# $Date: 2024/10/05 16:04:17 $
#
# The original header is preserved below for reference. It is noted that there
# is a "newer" version which differs in some cosmetic details (but actually
@@ -8060,6 +8060,17 @@
# "wezterm is a terminal emulator with support for modern features
# such as fonts with ligatures, hyperlinks, tabs and multiple windows."
#
+# The documentation bears mention. It refers to the "ANSI" standard and
+# https://wezfurlong.org/wezterm/what-is-a-terminal.html#ansi-and-ecma-48
+# X3.64 (withdrawn long ago). A related website
+# https://github.com/wez/ecma48
+# states that ECMA-48 was issued in 1979 and not revised since. Actually that
+# was the second revision; the fifth revision in 1991 is current. The source
+#
code refers to the second revision in a half-dozen places. Further, there
+# are three times as many references to Wikipedia as to xterm's documentation.
+# The git commit comments in several instances hint at an incomplete reading
+# of the relevant standards.
+#
# wezterm-20240203-110809-5046fc22 tested with MacOS
# General:
# + initial screensize is now 80x24
@@ -8094,7 +8105,7 @@
# + poor (doesn't copy anyone, most of the results are wrong)
# vtest:
# + DA is VT5xx with sixel, selective erase, user windows, color
-# + DA2 is VT220 version 277
+# + DA2 is VT220 version 277, perhaps a reference to xterm #277
# + only the VT100 character set works, contrary to DA/DA2.
# + no NRCS, either
# + double-sized character work, with some debris
@@ -8136,7 +8147,7 @@
use=ansi+rep, use=ansi+sgrdim, use=bracketed+paste,
use=ecma+index, use=ecma+italics, use=ecma+strikeout,
use=report+version, use=vt220+cvis,
- use=xterm+256color2, use=xterm+alt1049,
+ use=xterm+256color2,
use=xterm+alt+title,
use=xterm+focus, use=xterm+pcc2, use=xterm+pce2,
use=xterm+pcf2, use=xterm+sl-alt, use=xterm+sm+1006,
use=xterm+tmux,
@@ -27644,4 +27655,8 @@

```



```

# 2024-09-07
# + update comments -TD
#
+# 2024-10-05
+# + use xterm+alt+title in wezterm -TD
+# + update comments -TD
+#
##### SHANTIH! SHANTIH! SHANTIH!
Index: ncurses/base/lib_screen.c
Prereq: 1.108
--- ncurses-6.5-20240928+/ncurses/base/lib_screen.c 2024-09-22 20:20:36.000000000 +0000
+++ ncurses-6.5-20241006/ncurses/base/lib_screen.c 2024-10-05 20:47:44.000000000 +0000
@@ -42,7 +42,7 @@
#define CUR SP_TERMTYPE
#endif

-MODULE_ID("$Id: lib_screen.c,v 1.108 2024/09/22 20:20:36 tom Exp $")
+MODULE_ID("$Id: lib_screen.c,v 1.109 2024/10/05 20:47:44 tom Exp $")

#define MAX_SIZE 0x3fff /* 16k is big enough for a window or pad */

@@ -943,7 +943,7 @@
* Replace a window covering the whole screen, i.e., newscr or curscr.
*/
static WINDOW *
-replace_window(WINDOW *target, FILE *source)
+replace_window(const
WINDOW *target, FILE *source)
{
WINDOW *result = getwin(source);
#if NCURSES_EXT_FUNCS
Index: ncurses/base/new_pair.c
Prereq: 1.24
--- ncurses-6.5-20240928+/ncurses/base/new_pair.c 2024-07-27 19:22:23.000000000 +0000
+++ ncurses-6.5-20241006/ncurses/base/new_pair.c 2024-10-05 20:51:29.000000000 +0000
@@ -61,7 +61,7 @@

#endif

-MODULE_ID("$Id: new_pair.c,v 1.24 2024/07/27 19:22:23 tom Exp $")
+MODULE_ID("$Id: new_pair.c,v 1.25 2024/10/05 20:51:29 tom Exp $")

#if NCURSES_EXT_COLORS

@@ -193,7 +193,7 @@
* pair table.
*/
NCURSES_EXPORT(void)

```

```

- _nc_reset_color_pair(SCREEN *sp, int pair, colorpair_t * next)
+ _nc_reset_color_pair(SCREEN *sp, int pair, const colorpair_t * next)
{
    colorpair_t *last;

```

Index: ncurses/curses.priv.h

Prereq: 1.691

--- ncurses-6.5-20240928+/ncurses/curses.priv.h 2024-09-28 15:35:01.000000000 +0000

+++ ncurses-6.5-20241006/ncurses/curses.priv.h 2024-10-05 21:01:50.000000000 +0000

@@ -35,7 +35,7 @@

*****/

/*

- * \$Id: curses.priv.h,v 1.691 2024/09/28 15:35:01 tom Exp \$

+ * \$Id: curses.priv.h,v 1.692 2024/10/05 21:01:50 tom Exp \$

*

* curses.priv.h

*

@@ -2170,7 +2170,7 @@

extern NCURSES_EXPORT(int) _nc_read_termcap_entry (const char *const, TERMTYPE2 *const);

extern NCURSES_EXPORT(int) _nc_setup_tinfo(const char *, TERMTYPE2 *);

extern NCURSES_EXPORT(int) _nc_setupscreen (int, int, FILE *, int, int);

-extern NCURSES_EXPORT(int) _nc_timed_wait (SCREEN *, int, int, int * EVENTLIST_2nd(_nc_eventlist *));

+extern NCURSES_EXPORT(int) _nc_timed_wait (const SCREEN *, int, int, int *

EVENTLIST_2nd(_nc_eventlist *));

extern NCURSES_EXPORT(int) _nc_trans_string (char *, const char *);

extern NCURSES_EXPORT(void) _nc_init_termtype (TERMTYPE2 *const);

extern NCURSES_EXPORT(void) _nc_do_color (int, int, int, NCURSES_OUTC);

Index: ncurses/new_pair.h

Prereq: 1.14

--- ncurses-6.5-20240928+/ncurses/new_pair.h 2024-05-25 23:10:33.000000000 +0000

+++

ncurses-6.5-20241006/ncurses/new_pair.h 2024-10-05 20:57:47.000000000 +0000

@@ -34,7 +34,7 @@

/*

* Common type definitions and macros for new_pair.c, lib_color.c

*

- * \$Id: new_pair.h,v 1.14 2024/05/25 23:10:33 tom Exp \$

+ * \$Id: new_pair.h,v 1.15 2024/10/05 20:57:47 tom Exp \$

*/

#ifndef NEW_PAIR_H

@@ -116,7 +116,7 @@

#if NCURSES_EXT_FUNCS && NCURSES_EXT_COLORS

extern NCURSES_EXPORT(void) _nc_copy_pairs(SCREEN*, colorpair_t*, colorpair_t*, int);

extern NCURSES_EXPORT(void) _nc_free_ordered_pairs(SCREEN*);

-extern NCURSES_EXPORT(void) _nc_reset_color_pair(SCREEN*, int, colorpair_t*);

+extern NCURSES_EXPORT(void) _nc_reset_color_pair(SCREEN*, int, const colorpair_t*);

```

extern NCURSES_EXPORT(void) _nc_set_color_pair(SCREEN*, int, int);
#else
#define _nc_free_ordered_pairs(sp) /* nothing */
Index: ncurses/tinfo/trim_sgr0.c
Prereq: 1.23
--- ncurses-6.5-20240928+/ncurses/tinfo/trim_sgr0.c 2024-07-27 19:22:23.000000000 +0000
+++ ncurses-6.5-20241006/ncurses/tinfo/trim_sgr0.c 2024-10-05
20:53:48.000000000 +0000
@@ -37,7 +37,7 @@

#include <tic.h>

-MODULE_ID("$Id: trim_sgr0.c,v 1.23 2024/07/27 19:22:23 tom Exp $")
+MODULE_ID("$Id: trim_sgr0.c,v 1.24 2024/10/05 20:53:48 tom Exp $")

#undef CUR
#define CUR tp->

@@ -237,12 +237,10 @@

    if (PRESENT(exit_attribute_mode)
    && PRESENT(set_attributes)) {
- bool found = FALSE;
    char *on = set_attribute_9(tp, 1);
    char *off = set_attribute_9(tp, 0);
    char *end = strdup(exit_attribute_mode);
    char *tmp;
- size_t i, j, k;

    TR(TRACE_DATABASE, ("checking if we can trim sgr0 based on sgr"));
    TR(TRACE_DATABASE, ("sgr0      %s", _nc_visbuf(end)));
@@ -255,6 +253,9 @@
    FreeIfNeeded(off);
} else if (similar_sgr(off, end)
    && !similar_sgr(off, on)) {
+ bool found = FALSE;
+ size_t i, j, k;
+
    TR(TRACE_DATABASE, ("adjusting sgr(9:off) : %s", _nc_visbuf(off)));
    result = off;
    /*
Index: ncurses/tty/lib_twait.c
Prereq: 1.81
--- ncurses-6.5-20240928+/ncurses/tty/lib_twait.c 2023-09-16
16:30:40.000000000 +0000
+++ ncurses-6.5-20241006/ncurses/tty/lib_twait.c 2024-10-05 22:47:12.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 2018-2020,2023 Thomas E. Dickey
*

```

```
+ * Copyright 2018-2023,2024 Thomas E. Dickey                                     *
* Copyright 1998-2015,2016 Free Software Foundation, Inc.                         *
*                                                                                   *
* Permission is hereby granted, free of charge, to any person obtaining a *
@@ -76,7 +76,7 @@
#endif
#undef CUR

-MODULE_ID("$Id: lib_twait.c,v 1.81 2023/09/16 16:30:40 tom Exp $")
+MODULE_ID("$Id: lib_twait.c,v 1.82 2024/10/05 22:47:12 tom Exp $")

/*
 * Returns an elapsed time, in milliseconds (if possible).
@@ -168,7 +168,7 @@
 * descriptors.
 */
NCURSES_EXPORT(int)
-_nc_timed_wait(SCREEN *sp MAYBE_UNUSED,
+_nc_timed_wait(const
SCREEN *sp MAYBE_UNUSED,
    int mode MAYBE_UNUSED,
    int milliseconds,
    int *timeleft
Index: package/debian-mingw/changelog
--- ncurses-6.5-20240928+/package/debian-mingw/changelog 2024-09-28 09:53:21.000000000 +0000
+++ ncurses-6.5-20241006/package/debian-mingw/changelog 2024-10-06 08:53:45.000000000 +0000
@@ -1,8 +1,8 @@
-ncurses6td (6.5+20240928) unstable; urgency=low
+ncurses6td (6.5+20241006) unstable; urgency=low

 * latest weekly patch

- -- Thomas E. Dickey <dickey@invisible-island.net>  Sat, 28 Sep 2024 05:53:21 -0400
+ -- Thomas E. Dickey <dickey@invisible-island.net>  Sun, 06 Oct 2024 04:53:45 -0400

ncurses6 (5.9+20131005) unstable; urgency=low

Index: package/debian-mingw64/changelog
--- ncurses-6.5-20240928+/package/debian-mingw64/changelog 2024-09-28 09:53:21.000000000 +0000
+++ ncurses-6.5-20241006/package/debian-mingw64/changelog 2024-10-06 08:53:45.000000000 +0000
@@ -1,8 +1,8 @@
-ncurses6td (6.5+20240928) unstable; urgency=low
+ncurses6td
(6.5+20241006) unstable; urgency=low

 * latest weekly patch

- -- Thomas E. Dickey <dickey@invisible-island.net>  Sat, 28 Sep 2024 05:53:21 -0400
```

+ -- Thomas E. Dickey <dickey@invisible-island.net> Sun, 06 Oct 2024 04:53:45 -0400

ncurses6 (5.9+20131005) unstable; urgency=low

Index: package/debian/changelog

--- ncurses-6.5-20240928+/package/debian/changelog 2024-09-28 09:53:21.000000000 +0000

+++ ncurses-6.5-20241006/package/debian/changelog 2024-10-06 08:53:45.000000000 +0000

@@ -1,8 +1,8 @@

-ncurses6td (6.5+20240928) unstable; urgency=low

+ncurses6td (6.5+20241006) unstable; urgency=low

* latest weekly patch

- -- Thomas E. Dickey <dickey@invisible-island.net> Sat, 28 Sep 2024 05:53:21 -0400

+ -- Thomas E. Dickey <dickey@invisible-island.net> Sun, 06 Oct 2024 04:53:45 -0400

ncurses6 (5.9+20120608) unstable; urgency=low

Index: package/mingw-ncurses.nsi

Prereq: 1.669

--- ncurses-6.5-20240928+/package/mingw-ncurses.nsi 2024-09-28 09:53:21.000000000 +0000

+++

ncurses-6.5-20241006/package/mingw-ncurses.nsi 2024-10-06 08:53:45.000000000 +0000

@@ -1,4 +1,4 @@

-\$Id: mingw-ncurses.nsi,v 1.669 2024/09/28 09:53:21 tom Exp \$

+\$Id: mingw-ncurses.nsi,v 1.671 2024/10/06 08:53:45 tom Exp \$

; TODO add examples

; TODO bump ABI to 6

@@ -10,7 +10,7 @@

!define VERSION_MAJOR "6"

!define VERSION_MINOR "5"

!define VERSION_YYYY "2024"

!define VERSION_MMDD "0928"

+!define VERSION_MMDD "1006"

!define VERSION_PATCH \${VERSION_YYYY}\${VERSION_MMDD}

!define MY_ABI "5"

Index: package/mingw-ncurses.spec

--- ncurses-6.5-20240928+/package/mingw-ncurses.spec 2024-09-28 09:53:21.000000000 +0000

+++ ncurses-6.5-20241006/package/mingw-ncurses.spec 2024-10-06 08:53:45.000000000 +0000

@@ -3,7 +3,7 @@

Summary: shared libraries for terminal handling

Name: mingw32-ncurses6

Version: 6.5

-Release: 20240928

+Release: 20241006

License: X11

Group: Development/Libraries
URL: <https://invisible-island.net/ncurses/>
Index: package/ncurses.spec
--- ncurses-6.5-20240928+/package/ncurses.spec 2024-09-28
09:53:21.000000000 +0000
+++ ncurses-6.5-20241006/package/ncurses.spec 2024-10-06 08:53:45.000000000 +0000
@@ -1,7 +1,7 @@
Summary: shared libraries for terminal handling
Name: ncurses6
Version: 6.5
-Release: 20240928
+Release: 20241006
License: X11

Group: Development/Libraries
URL: <https://invisible-island.net/ncurses/>
Index: package/ncurset.spec
--- ncurses-6.5-20240928+/package/ncurset.spec 2024-09-28 09:53:21.000000000 +0000
+++ ncurses-6.5-20241006/package/ncurset.spec 2024-10-06 08:53:45.000000000 +0000
@@ -1,7 +1,7 @@
Summary: Curses library with POSIX thread support.
Name: ncurset6
Version: 6.5
-Release: 20240928
+Release: 20241006
License: X11

Group: Development/Libraries
Source: ncurses-%{version}-%{release}.tgz
Index: test/blue.c
Prereq: 1.55
--- ncurses-6.5-20240928+/test/blue.c 2022-12-10 23:31:31.000000000 +0000
+++ ncurses-6.5-20241006/test/blue.c 2024-10-05 19:26:24.000000000 +0000
@@ -1,5 +1,5 @@

```
/*
 * Copyright 1919-2021,2022 Thomas E. Dickey
+ * Copyright 1919-2022,2024 Thomas E. Dickey
 * Copyright 1998-2016,2017 Free Software Foundation, Inc.
 *
 * Permission is hereby granted, free of charge, to any person obtaining a
@@ -37,7 +37,7 @@
*****
/*
- * $Id: blue.c,v 1.55 2022/12/10 23:31:31 tom Exp $
+ * $Id: blue.c,v 1.56 2024/10/05 19:26:24 tom Exp $
 */
```

#include <test.priv.h>

```

@@ -437,7 +437,7 @@
static void
use_pc_display(void)
{
- char *check = nl_langinfo(CODESET);
+ const char *check = nl_langinfo(CODESET);
    if (!strcmp(check, "UTF-8")) {
#if USE_WIDEC_SUPPORT
    suits = uglyphs;
@@ -448,8 +448,8 @@
        !strcmp(check, "CP437") ||
        !strcmp(check,
"IBM850") ||
        !strcmp(check, "CP850")) {
- char *smacs = tigetstr("smacs");
- char *smpch = tigetstr("smpch");
+ const char *smacs = tigetstr("smacs");
+ const char *smpch = tigetstr("smpch");
    /*
        * The ncurses library makes this check to decide whether to allow
        * the alternate character set for the (normally) nonprinting codes.
Index: test/bs.c
Prereq: 1.79
--- ncurses-6.5-20240928+/test/bs.c 2023-05-27 20:13:10.000000000 +0000
+++ ncurses-6.5-20241006/test/bs.c 2024-10-05 19:26:24.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 2018-2022,2023 Thomas E. Dickey                *
+ * Copyright 2018-2023,2024 Thomas E. Dickey                *
 * Copyright 1998-2016,2017 Free Software Foundation, Inc.    *
 *
 * Permission is hereby granted, free of charge,
to any person obtaining a *
@@ -35,7 +35,7 @@
    * v2.0 featuring strict ANSI/POSIX conformance, November 1993.
    * v2.1 with ncurses mouse support, September 1995
    *
- * $Id: bs.c,v 1.79 2023/05/27 20:13:10 tom Exp $
+ * $Id: bs.c,v 1.80 2024/10/05 19:26:24 tom Exp $
    */

#include <test.priv.h>
@@ -147,7 +147,7 @@
    bool placed; /* has it been placed on the board? */
} ship_t;

-static bool checkplace(int b, ship_t * ss, int vis);
+static bool checkplace(int b, const ship_t * ss, int vis);

```



```

{
    FILE *fp;

@@ -341,7 +341,7 @@
}

static FIELD **
-make_fields(CARD * p, int form_high,
int form_wide)
+make_fields(const CARD * p, int form_high, int form_wide)
{
    FIELD **f = typeCalloc(FIELD *, (size_t) 3);

@@ -385,7 +385,7 @@
/*****

static void
-cardfile(char *fname)
+cardfile(const char *fname)
{
    WINDOW *win;
    CARD *p;
Index: test/chgat.c
Prereq: 1.21
--- ncurses-6.5-20240928+/test/chgat.c 2024-06-29 17:45:32.000000000 +0000
+++ ncurses-6.5-20241006/test/chgat.c 2024-10-06 22:35:55.000000000 +0000
@@ -27,7 +27,7 @@
    * authorization.
    *
    *****/
/*
- * $Id: chgat.c,v 1.21 2024/06/29 17:45:32 tom Exp $
+ * $Id: chgat.c,v 1.23 2024/10/06 22:35:55 tom Exp $
    *
    * test-driver for chgat/wchgat/mvchgat/mvwchgat
    */
@@ -160,7 +160,7 @@
}

static void
-do_subwindow(WINDOW *win, STATUS * sp, void func(WINDOW *))
+do_subwindow(WINDOW *win, const STATUS
    * sp, void func(WINDOW *))
{
    WINDOW *win1 = newwin(sp->y_max - 2, sp->x_max - 2,
        sp->y_beg + 1, sp->x_beg + 1);
@@ -204,7 +204,7 @@
static void
show_help(WINDOW *win)

```

```

{
- static const char *msgs[] =
+ static NCURSES_CONST char *msgs[] =
{
"Basic commands:"
,"Use h/j/k/l or arrow keys to move the cursor."
Index: test/clip_printw.c
Prereq: 1.23
--- ncurses-6.5-20240928+/test/clip_printw.c 2023-09-30 19:57:44.000000000 +0000
+++ ncurses-6.5-20241006/test/clip_printw.c 2024-10-06 22:36:25.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 2019-2022,2023 Thomas E. Dickey                *
+ * Copyright 2019-2023,2024 Thomas E. Dickey                *
* Copyright 2008-2016,2017 Free Software Foundation, Inc.    *
*
* Permission is hereby granted, free of charge,
to any person obtaining a *
@@ -27,7 +27,7 @@
* authorization.
*****/
/*
- * $Id: clip_printw.c,v 1.23 2023/09/30 19:57:44 tom Exp $
+ * $Id: clip_printw.c,v 1.25 2024/10/06 22:36:25 tom Exp $
*
* demonstrate how to use printw with/without wrapping.
*/
@@ -212,7 +212,7 @@
}

static void
-do_subwindow(WINDOW *win, STATUS * sp, void func(WINDOW *))
+do_subwindow(WINDOW *win, const STATUS * sp, void func(WINDOW *))
{
WINDOW *win1 = newwin(sp->y_max - (2 * MARGIN),
sp->x_max - (2 * MARGIN),
@@ -268,7 +268,7 @@
static void
show_help(WINDOW *win)
{
- static const char *msgs[] =
+ static NCURSES_CONST char *msgs[] =
{
"Basic commands:"
,"Use h/j/k/l or arrow keys to move the cursor."
Index: test/color_name.h
Prereq: 1.9
--- ncurses-6.5-20240928+/test/color_name.h 2021-04-24 23:25:29.000000000 +0000

```

```

+++ ncurses-6.5-20241006/test/color_name.h 2024-10-05
19:26:24.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 18-2020,2021 Thomas E. Dickey                      *
+ * Copyright 18-2021,2024 Thomas E. Dickey                      *
* Copyright 2011-2012,2016 Free Software Foundation, Inc.      *
*                                                                *
* Permission is hereby granted, free of charge, to any person obtaining a *
@@ -27,7 +27,7 @@
* authorization.
*****/

/*
- * $Id: color_name.h,v 1.9 2021/04/24 23:25:29 tom Exp $
+ * $Id: color_name.h,v 1.10 2024/10/05 19:26:24 tom Exp $
*/

#ifndef __COLORNAME_H
@@ -63,7 +63,6 @@
{
    int result = 0;
    char *endp = 0;
-   size_t n;

    if ((result = (int) strtol(color,
&endp, 0)) >= 0
&& (endp == 0 || *endp == 0)) {
@@ -71,6 +70,7 @@
    } else if (!strcmp(color, "default")) {
        result = -1;
    } else {
+   size_t n;
    for (n = 0; n < SIZEOF(the_color_names); ++n) {
        if (!strcmp(the_color_names[n], color)) {
            result = (int) n;
Index: test/demo_defkey.c
Prereq: 1.35
--- ncurses-6.5-20240928+/test/demo_defkey.c 2024-01-20 20:46:12.000000000 +0000
+++ ncurses-6.5-20241006/test/demo_defkey.c 2024-10-05 18:20:04.000000000 +0000
@@ -27,7 +27,7 @@
* authorization.
*****/

/*
- * $Id: demo_defkey.c,v 1.35 2024/01/20 20:46:12 tom Exp $
+ * $Id: demo_defkey.c,v 1.36 2024/10/05 18:20:04 tom Exp $
*
* Demonstrate the define_key() function.
* Thomas Dickey - 2002/11/23

```

@@ -199,7 +199,7 @@

}

static void

-redefine(WINDOW *win, char *string, int code)

+redefine(WINDOW *win, const char *string, int code)

{

really_define_key(win, string, code);

}

Index: test/demo_forms.c

Prereq: 1.63

--- ncurses-6.5-20240928+/test/demo_forms.c 2023-11-11 00:29:53.000000000 +0000

+++ ncurses-6.5-20241006/test/demo_forms.c 2024-10-06 21:15:12.000000000 +0000

@@ -1,5 +1,5 @@

/*****

- * Copyright 1988-2022,2023 Thomas E. Dickey *

+ * Copyright 1988-2023,2024 Thomas E. Dickey *

* Copyright 2003-2016,2017 Free Software Foundation, Inc. *

* *

* Permission is hereby granted, free of charge, to any person obtaining a *

@@ -27,7 +27,7 @@

* authorization. *

*****/

/*

- * \$Id: demo_forms.c,v 1.63 2023/11/11 00:29:53 tom Exp \$

+ * \$Id: demo_forms.c,v 1.67

2024/10/06 21:15:12 tom Exp \$

*

* Demonstrate a variety of functions from the form library.

* Thomas Dickey - 2003/4/26

@@ -148,7 +148,7 @@

}

static FIELD *

-make_label(const char *label, int frow, int fcol)

+make_label(NCURSES_CONST char *label, int frow, int fcol)

{

FIELD *f = new_field(1, (int) strlen(label), frow, fcol, 0, 0);

@@ -242,7 +242,7 @@

#define O_SELECTABLE (O_ACTIVE | O_VISIBLE)

static FIELD *

-another_field(FORM *form, const FIELD *const field)

+another_field(NCURSES_CONST FORM *form, NCURSES_CONST FIELD *const field)

{

FIELD **f = form_fields(form);

```

    FIELD *result = 0;
@@ -306,9 +306,9 @@
}

static void
-show_current_field(WINDOW *win, FORM *form)
+show_current_field(WINDOW *win, NCURSES_CONST FORM *form)
{
-   FIELD *field;
+   NCURSES_CONST FIELD *field;
    int field_rows, field_cols, field_max;
    int currow, curcol;

@@ -325,7 +325,7 @@
    waddch(win, '\n');

    if ((field = current_field(form)) != 0) {
-   FIELDTYPE *type;
+   NCURSES_CONST
    FIELDTYPE *type;
    int nbuf;

    wprintw(win, "Page %d%s, Field %d/%d%s:",
@@ -383,7 +383,7 @@

    waddstr(win, "\n");
    for (nbuf = 0; nbuf <= 2; ++nbuf) {
-   char *buffer;
+   NCURSES_CONST char *buffer;
        if ((buffer = field_buffer(field, nbuf)) != 0) {
            wprintw(win, "buffer %d:", nbuf);
            (void) wattrset(win, A_REVERSE);
@@ -408,8 +408,8 @@
            int c;
            unsigned n = 0;
            int pg;
-   const char *fname;
-   static const char *my_enum[] =
+   NCURSES_CONST char *fname;
+   static NCURSES_CONST char *my_enum[] =
        {"first", "second", "third", 0};

#ifdef NCURSES_MOUSE_VERSION
@@ -515,7 +515,7 @@
    f[n] = (FIELD *) 0;

    if ((form = new_form(f)) != 0) {
-   WINDOW *w;

```

```
+ NCURSES_CONST WINDOW *w;
```

```
WINDOW *also;
```

```
int finished = 0;
```

Index: test/demo_menus.c

Prereq: 1.80

```
--- ncurses-6.5-20240928+/test/demo_menus.c 2023-05-27 20:13:10.000000000 +0000
```

```
+++ ncurses-6.5-20241006/test/demo_menus.c 2024-10-06 19:58:28.000000000 +0000
```

```
@@ -1,5
```

```
+1,5 @@
```

```
/******
```

```
- * Copyright 1919-2022,2023 Thomas E. Dickey *
```

```
+ * Copyright 1919-2023,2024 Thomas E. Dickey *
```

```
* Copyright 2003-2016,2017 Free Software Foundation, Inc. *
```

```
* *
```

```
* Permission is hereby granted, free of charge, to any person obtaining a *
```

```
@@ -27,7 +27,7 @@
```

```
* authorization. *
```

```
*****/
```

```
/*
```

```
- * $Id: demo_menus.c,v 1.80 2023/05/27 20:13:10 tom Exp $
```

```
+ * $Id: demo_menus.c,v 1.82 2024/10/06 19:58:28 tom Exp $
```

```
*
```

```
* Demonstrate a variety of functions from the menu library.
```

```
* Thomas Dickey - 2005/4/9
```

```
@@ -185,7 +185,7 @@
```

```
}
```

```
static int
```

```
-menu_getc(MENU * m)
```

```
+menu_getc(NCURSES_CONST MENU * m)
```

```
{
```

```
    return wGetchar(menu_win(m));
```

```
}
```

```
@@ -214,7 +214,7 @@
```

```
my_menu_init(MENU * menu)
```

```
{
```

```
    Trace(("called MenuHook my_menu_init"));
```

```
-    mvwprintw(status, 2, 0, "menu_init %p", (void *) menu);
```

```
+    mvwprintw(status, 2, 0, "menu_init %p", (const void *) menu);
```

```
    wclrtoeol(status);
```

```
    wrefresh(status);
```

```
}
```

```
@@ -223,7 +223,7 @@
```

```
my_menu_term(MENU * menu)
```

```
{
```

```
    Trace(("called MenuHook my_menu_term"));
```

```
-    mvwprintw(status, 2, 0, "menu_term %p", (void *) menu);
```

```

+ mvwprintw(status, 2, 0, "menu_term %p", (const void *) menu);
  wclrtoeol(status);
  wrefresh(status);
}
@@ -231,7 +231,7 @@
static void
my_item_init(MENU * menu)
{
- ITEM *item = current_item(menu);
+ NCURSES_CONST ITEM *item = current_item(menu);
  const char *name = item_name(item);

  Trace(("called MenuHook my_item_init (%s)", name));
@@ -243,7 +243,7 @@
static void
my_item_term(MENU * menu)
{
- ITEM *item = current_item(menu);
+ NCURSES_CONST ITEM *item = current_item(menu);
  const char *name = item_name(item);

  Trace(("called MenuHook my_item_term (%s)", name));
@@ -348,7 +348,7 @@

/* force the given menu to appear */
static void
-menu_display(MENU * m)
+menu_display(NCURSES_CONST MENU * m)
{
  touchwin(menu_win(m));
  wrefresh(menu_win(m));
@@ -584,10 +584,10 @@
* the others
*/
static bool
-update_trace_menu(MENU * m)
+update_trace_menu(NCURSES_CONST MENU * m)
{
  ITEM **items;
- ITEM *i;
+ NCURSES_CONST ITEM *i;
  bool changed = FALSE;

  items = menu_items(m);
@@ -613,7 +613,7 @@
  int result;

  for (ip = menu_items(mpTrace); *ip; ip++) {

```

```

- MENU_DATA *td = (MENU_DATA *) item_userptr(*ip);
+ NCURSES_CONST MENU_DATA *td = (MENU_DATA *) item_userptr(*ip);
unsigned mask = td->mask;
if (mask == 0)
    set_item_value(*ip, _nc_tracing == 0);
@@ -628,7 +628,7 @@
    unsigned newtrace = 0;
    for (ip = menu_items(mpTrace); *ip; ip++) {
        if (item_value(*ip)) {
-         MENU_DATA *td = (MENU_DATA *) item_userptr(*ip);
+         NCURSES_CONST
MENU_DATA *td = (MENU_DATA *) item_userptr(*ip);
            newtrace |= td->mask;
        }
    }
@@ -718,7 +718,9 @@
}

```

```

static int
-move_menu(MENU * menu, MENU * current, int by_y, int by_x)
+move_menu(NCURSES_CONST MENU * menu,
+ NCURSES_CONST MENU * current,
+ int by_y, int by_x)
{
    WINDOW *top_win = menu_win(menu);
    WINDOW *sub_win = menu_sub(menu);
@@ -798,7 +800,7 @@
#endif /* defined(KEY_RESIZE) && NCURSES_EXT_FUNCS */

```

```

static void
-show_status(int ch, MENU * menu)
+show_status(int ch, NCURSES_CONST MENU * menu)
{
    wmove(status, 0, 0);
    wprintw(status, "key %s, menu %d, mark %s, match %s",
@@ -919,7 +921,7 @@
    wrefresh(menu_win(last_menu));
    if (code == E_UNKNOWN_COMMAND
        || code == E_NOT_POSTED) {
-     ITEM *item = current_item(last_menu);
+     NCURSES_CONST ITEM *item = current_item(last_menu);
        MENU_DATA *td = (MENU_DATA *) item_userptr(item);
        td->func((int) td->mask);
    }

```

Index: test/demo_new_pair.c

Prereq: 1.28

--- ncurses-6.5-20240928+/test/demo_new_pair.c 2024-06-29


```

19:30:26.000000000 +0000
+++ ncurses-6.5-20241006/test/demo_new_pair.c 2024-10-05 18:21:44.000000000 +0000
@@ -27,7 +27,7 @@
* authorization.
*****
/*
- * $Id: demo_new_pair.c,v 1.28 2024/06/29 19:30:26 tom Exp $
+ * $Id: demo_new_pair.c,v 1.29 2024/10/05 18:21:44 tom Exp $
*
* Demonstrate the alloc_pair() function.
*/
@@ -49,7 +49,7 @@
static bool
valid_cap(NCURSES_CONST char *name)
{
- char *value = tigetstr(name);
+ const char *value = tigetstr(name);
    return (value != 0 && value != (char *) -1) ? TRUE : FALSE;
}

Index: test/demo_panels.c
Prereq: 1.48
--- ncurses-6.5-20240928+/test/demo_panels.c 2022-12-04 00:40:11.000000000 +0000
+++ ncurses-6.5-20241006/test/demo_panels.c 2024-10-06 20:01:21.000000000 +0000
@@ -1,5 +1,5 @@
/*****
-
* Copyright 2018-2020,2022 Thomas E. Dickey
+ * Copyright 2018-2022,2024 Thomas E. Dickey
* Copyright 2003-2016,2017 Free Software Foundation, Inc.
*
* Permission is hereby granted, free of charge, to any person obtaining a
@@ -27,7 +27,7 @@
* authorization.
*****
/*
- * $Id: demo_panels.c,v 1.48 2022/12/04 00:40:11 tom Exp $
+ * $Id: demo_panels.c,v 1.50 2024/10/06 20:01:21 tom Exp $
*
* Demonstrate a variety of functions from the panel library.
*/
@@ -42,7 +42,7 @@
#define TEMP_POS '>'

typedef void (*InitPanel) (void);
-typedef void (*FillPanel) (PANEL *);
+typedef void (*FillPanel) (NCURSES_CONST PANEL *);

```

```

static bool use_colors = FALSE;
static bool
    unboxed = FALSE;
@@ -301,7 +301,7 @@
int code;
int y0, x0;
int y1, x1;
- WINDOW *win = panel_window(pans[which]);
+ NCURSES_CONST WINDOW *win = panel_window(pans[which]);
char also[80];

getbegyx(win, y0, x0);
@@ -368,7 +368,7 @@
}

static void
-fill_panel(PANEL *pan)
+fill_panel(NCURSES_CONST PANEL *pan)
{
    WINDOW *win = panel_window(pan);
    const char *userptr = (const char *) panel_userptr(pan);
@@ -388,7 +388,7 @@
}

static void
-fill_unboxed(PANEL *pan)
+fill_unboxed(NCURSES_CONST PANEL *pan)
{
    WINDOW *win = panel_window(pan);
    const char *userptr = (const char *) panel_userptr(pan);
@@ -431,7 +431,7 @@
}

static void
-fill_wide_panel(PANEL *pan)
+fill_wide_panel(NCURSES_CONST PANEL *pan)
{
    WINDOW *win = panel_window(pan);
    int num = ((const char *) panel_userptr(pan))[1];
@@ -453,7 +453,7 @@
#define MAX_PANELS 5

static int
-which_panel(PANEL *px[MAX_PANELS + 1], PANEL *pan)
+which_panel(PANEL *px[MAX_PANELS + 1], NCURSES_CONST
    PANEL *pan)
{
    int result = 0;

```

```

    int j;
Index: test/demo_termcap.c
Prereq: 1.65
--- ncurses-6.5-20240928+/test/demo_termcap.c 2023-05-27 20:13:10.000000000 +0000
+++ ncurses-6.5-20241006/test/demo_termcap.c 2024-10-06 20:05:09.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 1919-2022,2023 Thomas E. Dickey                *
+ * Copyright 1919-2023,2024 Thomas E. Dickey                *
 * Copyright 2005-2016,2017 Free Software Foundation, Inc.    *
 *                                                              *
 * Permission is hereby granted, free of charge, to any person obtaining a *
@@ -30,7 +30,7 @@
/*
 * Author: Thomas E. Dickey
 *
- * $Id: demo_termcap.c,v 1.65 2023/05/27 20:13:10 tom Exp $
+ * $Id: demo_termcap.c,v 1.70 2024/10/06 20:05:09 tom Exp $
 *
 * A simple demo of the termcap interface.
 */
@@ -256,7 +256,7 @@

 * to hold all of the strings extracted from the terminal entry.
 */
char area[1024], *ap = area;
- char *str;
+ NCURSES_CONST char *str;
int num;

if ((str = tgetstr(cap, &ap)) != 0) {
@@ -289,7 +289,7 @@
}

static void
-brute_force(const char *name)
+brute_force(NCURSES_CONST char *name)
{
    char buffer[1024];

@@ -369,7 +369,7 @@
#ifdef NCURSES_VERSION
if (x_opt && (my_blob == 0) && y_opt) {
#ifdef NCURSES_XNAMES
-    TERMTYPE *term = (TERMTYPE *) cur_term;
+    NCURSES_CONST TERMTYPE *term = (TERMTYPE *) cur_term;
    if (term != 0
        && (NUM_BOOLEANS(term) != BOOLCOUNT)

```

```

    || (NUM_NUMBERS(term) != NUMCOUNT)
@@ -781,12 +781,12 @@
{
    int ch;
    int n;
-   char *name;
+   NCURSES_CONST char *name;
    bool a_opt = FALSE;
#if defined(NCURSES_VERSION) || defined(HAVE_CURSES_DATA_OSPEED)
    bool v_opt = FALSE;
#endif
-   char *input_name = 0;
+   NCURSES_CONST char *input_name = 0;

    int repeat;
    int r_opt = 1;
@@ -867,7
+867,7 @@
    } else if ((name = getenv("TERM")) != 0) {
        brute_force(name);
    } else {
-   static char dumb[] = "dumb";
+   static NCURSES_CONST char dumb[] = "dumb";
        brute_force(dumb);
    }
}
@@ -894,7 +894,7 @@
    } else if ((name = getenv("TERM")) != 0) {
        demo_termcap(name);
    } else {
-   static char dumb[] = "dumb";
+   static NCURSES_CONST char dumb[] = "dumb";
        demo_termcap(dumb);
    }
}
Index: test/demo_terminfo.c
Prereq: 1.57
--- ncurses-6.5-20240928+/test/demo_terminfo.c 2023-05-27 20:13:10.000000000 +0000
+++ ncurses-6.5-20241006/test/demo_terminfo.c 2024-10-06 21:16:43.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 2019-2022,2023 Thomas E. Dickey                *
+ * Copyright 2019-2023,2024 Thomas E. Dickey                *
 * Copyright 2009-2016,2017 Free Software Foundation, Inc.    *
 *
*
* Permission is hereby granted, free of charge, to any person obtaining a *
@@ -30,7 +30,7 @@

```

```

/*
 * Author: Thomas E. Dickey
 *
- * $Id: demo_terminfo.c,v 1.57 2023/05/27 20:13:10 tom Exp $
+ * $Id: demo_terminfo.c,v 1.59 2024/10/06 21:16:43 tom Exp $
 *
 * A simple demo of the terminfo interface.
 */
@@ -253,7 +253,7 @@
#define LegalItem(c,n) (n)

static void
-brute_force(const char *name)
+brute_force(NCURSES_CONST char *name)
{
#define MAX_FORCE 5 /* omit "colors", since CPU-time is a problem */
    static const char legal[] = "\
@@ -324,7 +324,7 @@
#endif

static void
-demo_terminfo(char *name)
+demo_terminfo(NCURSES_CONST char *name)
{
    unsigned n;
    NCURSES_CONST char *cap;
@@ -366,7 +366,7 @@
    if (x_opt && (my_blob == 0)) {
    if (y_opt) {
#ifdef NCURSES_XNAMES
-    TERMTYPE *term = (TERMTYPE *) cur_term;
+    const TERMTYPE *term = (TERMTYPE *) cur_term;
    if (term != 0
        && ((NUM_BOOLEANS(term)
            != BOOLCOUNT)
            || (NUM_NUMBERS(term) != NUMCOUNT)
@@ -813,9 +813,9 @@
        int ch;
        int n;
        int repeat;
-    char *name;
+    NCURSES_CONST char *name;
        int r_opt = 1;
-    char *input_name = 0;
+    const char *input_name = 0;

        while ((ch = getopt(argc, argv, OPTS_COMMON "abd:e:fi:nqr:sxy")) != -1) {
        switch (ch) {

```

```

@@ -891,7 +891,7 @@
    } else if ((name = getenv("TERM")) != 0) {
        brute_force(name);
    } else {
- static char dumb[] = "dumb";
+ static NCURSES_CONST char dumb[] = "dumb";
        brute_force(dumb);
    }
}

@@ -918,7 +918,7 @@
    } else if ((name = getenv("TERM")) != 0) {
        demo_terminfo(name);
    } else {
- static char dumb[] = "dumb";
+ static NCURSES_CONST char dumb[] = "dumb";
        demo_terminfo(dumb);
    }
}

Index: test/dots.c
Prereq: 1.45
--- ncurses-6.5-20240928+/test/dots.c 2023-01-07 17:21:48.000000000 +0000
+++ ncurses-6.5-20241006/test/dots.c 2024-10-06 21:17:54.000000000 +0000
@@ -1,5 +1,5 @@
/*****
-
- * Copyright 2019-2022,2023 Thomas E. Dickey                *
+ * Copyright 2019-2023,2024 Thomas E. Dickey                *
* Copyright 1999-2013,2017 Free Software Foundation, Inc.    *
*
* Permission is hereby granted, free of charge, to any person obtaining a *
@@ -30,7 +30,7 @@
/*
* Author: Thomas E. Dickey <dickey@clark.net> 1999
*
- * $Id: dots.c,v 1.45 2023/01/07 17:21:48 tom Exp $
+ * $Id: dots.c,v 1.46 2024/10/06 21:17:54 tom Exp $
*
* A simple demo of the terminfo interface.
*/
@@ -61,7 +61,7 @@
}

static bool
-outs(const char *s)
+outs(NCURSES_CONST char *s)
{
    if (VALID_STRING(s)) {
        tputs(s, 1, outc);

```



```

-outs(char *s)
+outs(NCURSES_CONST char *s)
{
    if (VALID_STRING(s)) {
        tputs(s, 1, outc);
@@ -178,7 +178,7 @@
get_number(NCURSES_CONST char *cap, const char *env)
{
    int result = tgetnum(cap);
-   char *value = env ? getenv(env) : 0;
+   const char *value = env ? getenv(env) : 0;
    if (value != 0 && *value != 0) {
        char *next = 0;
        long check = strtol(value, &next, 10);
@@ -229,7 +229,7 @@
        double c;
        char buffer[1024];
        char area[1024];
-   char *name;
+   NCURSES_CONST char *name;
        size_t need;
        char *my_env;

```

Index: test/dup_field.c

Prereq: 1.9

--- ncurses-6.5-20240928+/test/dup_field.c 2024-06-29

17:45:32.000000000 +0000

+++ ncurses-6.5-20241006/test/dup_field.c 2024-10-06 20:07:19.000000000 +0000

@@ -26,7 +26,7 @@

* authorization.

*

*****/

/*

- * \$Id: dup_field.c,v 1.9 2024/06/29 17:45:32 tom Exp \$

+ * \$Id: dup_field.c,v 1.11 2024/10/06 20:07:19 tom Exp \$

*

* Demonstrate dup_field().

*/

@@@ -146,27 +146,27 @@@

}

static FieldAttrs *

-my_field_attrs(FIELD *f)

+my_field_attrs(NCURSES_CONST FIELD *f)

{

return (FieldAttrs *) field_userptr(f);

}

static int


```

-buffer_length(FIELD *f)
+buffer_length(NCURSES_CONST FIELD *f)
{
    return my_field_attrs(f)->row_lengths[0];
}

static void
-set_buffer_length(FIELD *f, int length)
+set_buffer_length(NCURSES_CONST FIELD *f, int length)
{
    my_field_attrs(f)->row_lengths[0] = length;
}

static int
-offset_in_field(FORM *form)
+offset_in_field(NCURSES_CONST
FORM *form)
{
-   FIELD *field = current_field(form);
+   NCURSES_CONST FIELD *field = current_field(form);
    int currow, curcol;

    form_getyx(form, currow, curcol);
@@ -245,7 +245,7 @@

```

```

default:
    modified = (ch < MIN_FORM_COMMAND
-   && isprint(ch));
+   && isprint(UChar(ch)));
    break;
}

```

Index: test/filter.c

Prereq: 1.38

--- ncurses-6.5-20240928+/test/filter.c 2022-12-04 00:40:11.000000000 +0000

+++ ncurses-6.5-20241006/test/filter.c 2024-10-05 19:26:24.000000000 +0000

@@ -1,5 +1,5 @@

/*****

```

- * Copyright 2019-2020,2022 Thomas E. Dickey          *
+ * Copyright 2019-2022,2024 Thomas E. Dickey          *
* Copyright 1998-2016,2017 Free Software Foundation, Inc. *
*
*

```

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@@

-30,7 +30,7 @@

/*

* Author: Thomas E. Dickey 1998

*

```

- * $Id: filter.c,v 1.38 2022/12/04 00:40:11 tom Exp $
+ * $Id: filter.c,v 1.39 2024/10/05 19:26:24 tom Exp $
*

* An example of the 'filter()' function in ncurses, this program prompts
* for commands and executes them (like a command shell). It illustrates
@@ -65,7 +65,7 @@
    if (clocked) {
if (limit >= 3) {
    time_t now = time((time_t *) 0);
-    struct tm *my = localtime(&now);
+    const struct tm *my = localtime(&now);
    char buffer[80];
    int skip, y, x;
    int margin;
Index: test/form_driver_w.c
Prereq: 1.17
--- ncurses-6.5-20240928+/test/form_driver_w.c 2022-12-10 23:31:31.000000000 +0000
+++ ncurses-6.5-20241006/test/form_driver_w.c 2024-10-06 23:13:40.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 2020,2022 Thomas E. Dickey                                *
+ * Copyright 2020-2022,2024 Thomas E. Dickey
*
* Copyright 2013-2014,2017 Free Software Foundation, Inc.            *
*
* Permission is hereby granted, free of charge, to any person obtaining a *
@@ -32,7 +32,7 @@
*****/

/*
- * $Id: form_driver_w.c,v 1.17 2022/12/10 23:31:31 tom Exp $
+ * $Id: form_driver_w.c,v 1.18 2024/10/06 23:13:40 tom Exp $
*

* Test form_driver_w (int, int, wchar_t), a wide char aware
* replacement of form_driver.
@@ -68,7 +68,7 @@
int
main(int argc, char *argv[])
{
-    static const char *help[] =
+    static NCURSES_CONST char *help[] =
    {
        "Commands:",
        " ^D,^Q,ESC      - quit program",
Index: test/gdc.c
Prereq: 1.60
--- ncurses-6.5-20240928+/test/gdc.c 2024-06-29 19:59:06.000000000 +0000
+++ ncurses-6.5-20241006/test/gdc.c 2024-10-06 20:08:59.000000000 +0000

```

```

@@ -34,7 +34,7 @@
* modified 10-18-89
for curses (jrl)
* 10-18-89 added signal handling
*
- * $Id: gdc.c,v 1.60 2024/06/29 19:59:06 tom Exp $
+ * $Id: gdc.c,v 1.62 2024/10/06 20:08:59 tom Exp $
*/

#include <test.priv.h>
@@ -181,7 +181,7 @@
    int check;
    time_t result;
    char c = 0;
-   struct tm *tm;
+   NCURSES_CONST struct tm *tm;

    switch (sscanf(value, "%d:%d:%d%c", &hh, &mm, &ss, &c)) {
    default:
@@ -243,7 +243,7 @@
main(int argc, char *argv[])
{
    time_t now;
-   struct tm *tm;
+   NCURSES_CONST struct tm *tm;
    long t, a;
    int i, j, s, k, ch;
    int count = 0;
@@ -293,7 +293,7 @@

    InitAndCatch({
    if (redirected) {
-   char *name = getenv("TERM");
+   NCURSES_CONST char *name = getenv("TERM");
        if (name == 0
            || newterm(name, ofp, ifp) == 0) {
            fprintf(stderr, "cannot open terminal\n");
@@ -431,7 +431,7 @@
        _nc_STRNCPY(buf, ctime(&now), (size_t) 30);
        {
            char *d2 = buf + 10;
-           char *s2 = buf + 19;
+           NCURSES_CONST char *s2 = buf + 19;
            while ((*d2++ = *s2++) != '\0') ;
        }
        MvAddStr(16, 30, buf);
Index: test/inch_wide.c
Prereq: 1.13

```

```

--- ncurses-6.5-20240928+/test/inch_wide.c 2022-12-10 23:55:34.000000000 +0000
+++ ncurses-6.5-20241006/test/inch_wide.c 2024-10-06 23:14:31.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 2019-2020,2022 Thomas E. Dickey                *
+ * Copyright 2019-2022,2024 Thomas E. Dickey                *
* Copyright 2007-2010,2017 Free Software Foundation, Inc.    *
*
* Permission is hereby granted, free of charge, to any person obtaining a *
@@ -27,7 +27,7 @@
* authorization.
*****/
/*
- * $Id: inch_wide.c,v 1.13 2022/12/10 23:55:34 tom Exp $
+
* $Id: inch_wide.c,v 1.14 2024/10/06 23:14:31 tom Exp $
*/
/*
    int in_wch(cchar_t *wcval);
@@ -61,7 +61,7 @@
static int
test_inchs(int level, char **argv, WINDOW *chrwin, WINDOW *strwin)
{
- static const char *help[] =
+ static NCURSES_CONST char *help[] =
{
    "Test input from screen using inch(), etc., in a moveable viewport.",
    ""
}
Index: test/inchs.c
Prereq: 1.19
--- ncurses-6.5-20240928+/test/inchs.c 2022-12-11 00:01:39.000000000 +0000
+++ ncurses-6.5-20241006/test/inchs.c 2024-10-06 21:17:54.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 2019-2020,2022 Thomas E. Dickey                *
+ * Copyright 2019-2022,2024 Thomas E. Dickey                *
* Copyright 2007-2012,2017 Free Software Foundation, Inc.    *
*
* Permission is hereby granted, free of
charge, to any person obtaining a *
@@ -27,7 +27,7 @@
* authorization.
*****/
/*
- * $Id: inchs.c,v 1.19 2022/12/11 00:01:39 tom Exp $
+ * $Id: inchs.c,v 1.20 2024/10/06 21:17:54 tom Exp $
*
* Author: Thomas E Dickey

```

```

*/
@@ -71,7 +71,7 @@
static int
test_inch(int level, char **argv, WINDOW *chrwin, WINDOW *strwin)
{
- static const char *help[] =
+ static NCURSES_CONST char *help[] =
{
"Test input from screen using inch(), etc., in a moveable viewport.",
""
Index: test/ins_wide.c
Prereq: 1.30
--- ncurses-6.5-20240928+/test/ins_wide.c 2022-12-10 22:28:50.000000000 +0000
+++ ncurses-6.5-20241006/test/ins_wide.c 2024-10-05 19:26:24.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 2020,2022 Thomas E. Dickey
+ * Copyright
2020-2022,2024 Thomas E. Dickey
* Copyright 2002-2016,2017 Free Software Foundation, Inc.
*
* Permission is hereby granted, free of charge, to any person obtaining a
@@ -27,7 +27,7 @@
* authorization.
*****/
/*
- * $Id: ins_wide.c,v 1.30 2022/12/10 22:28:50 tom Exp $
+ * $Id: ins_wide.c,v 1.31 2024/10/05 19:26:24 tom Exp $
*
* Demonstrate the wins_wstr() and wins_wch functions.
* Thomas Dickey - 2002/11/23
@@ -73,7 +73,7 @@
static int n_opt = -1;

static void
-legend(WINDOW *win, int level, Options state, wchar_t *buffer, int length)
+legend(WINDOW *win, int level, Options state, const wchar_t *buffer, int length)
{
const char *showstate;

Index: test/insdelln.c
Prereq: 1.15
--- ncurses-6.5-20240928+/test/insdelln.c 2022-12-10
23:31:31.000000000 +0000
+++ ncurses-6.5-20241006/test/insdelln.c 2024-10-06 21:08:52.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 2019-2020,2022 Thomas E. Dickey
+

```

```

+ * Copyright 2019-2022,2024 Thomas E. Dickey                      *
* Copyright 2008-2014,2017 Free Software Foundation, Inc.          *
*                                                                    *
* Permission is hereby granted, free of charge, to any person obtaining a *
@@ -27,7 +27,7 @@
* authorization.                                                    *
*****/

/*
- * $Id: insdelln.c,v 1.15 2022/12/10 23:31:31 tom Exp $
+ * $Id: insdelln.c,v 1.17 2024/10/06 21:08:52 tom Exp $
*
* test-driver for deleteln, wdeleteln, insdelln, winsdelln, insertln, winsertln
*/
@@ -160,7 +160,7 @@
}

static void
-do_subwindow(WINDOW *win, STATUS * sp, void func(WINDOW *))
+do_subwindow(WINDOW *win, const STATUS * sp, void func(WINDOW *))
{
    WINDOW *win1 = newwin(sp->y_max - 2, sp->x_max - 2,
        sp->y_beg + 1, sp->x_beg + 1);
@@ -204,7 +204,7 @@
static void
show_help(WINDOW *win)
{
-    static const char *table[] =
+    static NCURSES_CONST char *table[] =
    {
        "Basic commands:"
        ,"Use h/j/k/l or arrow keys to move the cursor."
Index: test/inserts.c
Prereq: 1.34
--- ncurses-6.5-20240928+/test/inserts.c 2022-12-10 22:28:50.000000000 +0000
+++ ncurses-6.5-20241006/test/inserts.c 2024-10-05 19:26:24.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 2020,2022 Thomas E. Dickey                      *
+ * Copyright 2020-2022,2024 Thomas E. Dickey                      *
* Copyright 2002-2016,2017 Free Software Foundation, Inc.          *
*                                                                    *
*                                                                    *
* Permission is hereby granted, free of charge, to any person obtaining a *
@@ -27,7 +27,7 @@
* authorization.                                                    *
*****/

/*
- * $Id: inserts.c,v 1.34 2022/12/10 22:28:50 tom Exp $

```

```

+ * $Id: inserts.c,v 1.35 2024/10/05 19:26:24 tom Exp $
*
* Demonstrate the winsstr() and winsch functions.
* Thomas Dickey - 2002/10/19
@@ -98,7 +98,7 @@
}

static int
-ColOf(char *buffer, int length, int margin)
+ColOf(const char *buffer, int length, int margin)
{
    int n;
    int result;
Index: test/knight.c
Prereq: 1.52
--- ncurses-6.5-20240928+/test/knight.c 2022-12-04 00:40:11.000000000 +0000
+++ ncurses-6.5-20241006/test/knight.c 2024-10-05 19:38:58.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright
2018-2021,2022 Thomas E. Dickey
+ * Copyright 2018-2022,2024 Thomas E. Dickey
* Copyright 1998-2013,2017 Free Software Foundation, Inc.
*
* Permission is hereby granted, free of charge, to any person obtaining a
@@ -34,7 +34,7 @@
* Eric S. Raymond <esr@snark.thyrsus.com> July 22 1995. Mouse support
* added September 20th 1995.
*
- * $Id: knight.c,v 1.52 2022/12/04 00:40:11 tom Exp $
+ * $Id: knight.c,v 1.53 2024/10/05 19:38:58 tom Exp $
*/

#include <test.priv.h>
@@ -450,7 +450,8 @@
}

static bool
-evaluate_move(SQUARES squares, HISTORY * doneData, int doneSize, int row, int column)
+evaluate_move(SQUARES squares, const HISTORY * doneData, int doneSize,
+    int row, int column)
{
    if (doneSize <= 1)
return (TRUE);
Index: test/list_keys.c
Prereq: 1.33
--- ncurses-6.5-20240928+/test/list_keys.c 2023-11-11

```

```

00:35:05.000000000 +0000
+++ ncurses-6.5-20241006/test/list_keys.c 2024-10-05 19:26:24.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 1988-2022,2023 Thomas E. Dickey                      *
+ * Copyright 1988-2023,2024 Thomas E. Dickey                      *
* Copyright 2016,2017 Free Software Foundation, Inc.              *
*                                                                    *
* Permission is hereby granted, free of charge, to any person obtaining a *
@@ -27,7 +27,7 @@
* authorization.                                                  *
*****/
/*
- * $Id: list_keys.c,v 1.33 2023/11/11 00:35:05 tom Exp $
+ * $Id: list_keys.c,v 1.34 2024/10/05 19:26:24 tom Exp $
*
* Author: Thomas E Dickey
*
@@ -297,7 +297,7 @@
#if NCURSES_XNAMES
    if (x_opt) {
        for (k = 0; k < count; ++k) {
-         TERMTYPE *term;
+         const TERMTYPE *term;
            set_curterm(terms[k]);
            term = (TERMTYPE *) cur_term;
            total += (size_t) (NUM_STRINGS(term) - STRCOUNT);
@@ -348,7 +348,7 @@
        widths1 = (int) strlen(modifier);

        for (k = 0; k < count; ++k) {
- char *value;
+ const char *value;
            set_curterm(terms[k]);
            if ((value = termname()) == NULL)
                failed("termname");
Index: test/move_field.c
Prereq: 1.16
--- ncurses-6.5-20240928+/test/move_field.c 2024-06-29 17:45:02.000000000 +0000
+++ ncurses-6.5-20241006/test/move_field.c 2024-10-06 21:12:35.000000000 +0000
@@ -26,7 +26,7 @@
* authorization.                                                  *
*****/
/*
- * $Id: move_field.c,v 1.16 2024/06/29 17:45:02 tom Exp $
+ * $Id: move_field.c,v 1.19 2024/10/06 21:12:35 tom Exp $
*
* Demonstrate move_field().

```



```

*/
@@ -146,27 +146,27 @@
}

static FieldAttrs
*
-my_field_attrs(FIELD *f)
+my_field_attrs(NCURSES_CONST FIELD *f)
{
    return (FieldAttrs *) field_userptr(f);
}

static int
-buffer_length(FIELD *f)
+buffer_length(NCURSES_CONST FIELD *f)
{
    return my_field_attrs(f)->row_lengths[0];
}

static void
-set_buffer_length(FIELD *f, int length)
+set_buffer_length(NCURSES_CONST FIELD *f, int length)
{
    my_field_attrs(f)->row_lengths[0] = length;
}

static int
-offset_in_field(FORM *form)
+offset_in_field(NCURSES_CONST FORM *form)
{
-    FIELD *field = current_field(form);
+    NCURSES_CONST FIELD *field = current_field(form);
    int currow, curcol;

    form_getyx(form, currow, curcol);
@@ -245,7 +245,7 @@

default:
    modified = (ch < MIN_FORM_COMMAND
-    && isprint(ch));
+    && isprint(UChar(ch)));
    break;
}

@@ -275,9 +275,9 @@

/* display a status message to show what's happening */
static void

```

```

-show_status(FORM *form, FIELD *field)
+show_status(NCURSES_CONST FORM *form, NCURSES_CONST FIELD
*field)
{
- WINDOW *sub = form_sub(form);
+ NCURSES_CONST WINDOW *sub = form_sub(form);
    int currow, curcol;

    getyx(stdscr, currow, curcol);
Index: test/movewindow.c
Prereq: 1.54
--- ncurses-6.5-20240928+/test/movewindow.c 2023-05-27 20:13:10.000000000 +0000
+++ ncurses-6.5-20241006/test/movewindow.c 2024-10-06 18:44:26.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 2018-2022,2023 Thomas E. Dickey                *
+ * Copyright 2018-2023,2024 Thomas E. Dickey                *
* Copyright 2006-2013,2017 Free Software Foundation, Inc.    *
*                                                              *
* Permission is hereby granted, free of charge, to any person obtaining a *
@@ -27,7 +27,7 @@
* authorization.
*****/
/*
- * $Id: movewindow.c,v 1.54 2023/05/27 20:13:10 tom Exp $
+ * $Id: movewindow.c,v 1.56 2024/10/06 18:44:26 tom Exp $
*
* Demonstrate move functions for windows and derived windows from the curses
* library.
@@ -135,7 +135,7 @@
*/
static PAIR *
selectcell(WINDOW *parent,
- WINDOW *child,
+ NCURSES_CONST WINDOW *child,
    int uli, int ulj,
    int lri, int lrj,
    bool relative,
@@ -252,7 +252,7 @@
    int max_col = (parent == stdscr) ? COL_MAX : getmaxx(parent);
    int min_line = (parent == stdscr) ? LINE_MIN : 0;
    int max_line = (parent == stdscr) ? LINE_MAX : getmaxy(parent);
- PAIR *tmp;
+ NCURSES_CONST PAIR *tmp;
    bool result = FALSE;

    head_line("Use arrows to move cursor, anything else to mark corner 1");
@@ -346,7 +346,7 @@

```

```

}

static WINDOW *
-parent_of(WINDOW *win)
+parent_of(NCURSES_CONST WINDOW *win)
{
    WINDOW *result = 0;
    int n = window2num(win);
@@ -435,7 +435,7 @@
    int max_col = top ? COL_MAX
: getmaxx(parent);
    int min_line = top ? LINE_MIN : 0;
    int max_line = top ? LINE_MAX : getmaxy(parent);
- PAIR *tmp;
+ NCURSES_CONST PAIR *tmp;
    bool more;

    head_line("Select new position for %swindow", top ? "" : "sub");
@@ -474,7 +474,7 @@
}

static void
-show_derwin(WINDOW *win)
+show_derwin(NCURSES_CONST WINDOW *win)
{
    int pary, parx, maxy, maxx;

@@ -500,7 +500,7 @@
    int max_col = top ? COL_MAX : getmaxx(parent);
    int min_line = top ? LINE_MIN : 0;
    int max_line = top ? LINE_MAX : getmaxy(parent);
- PAIR *tmp;
+ NCURSES_CONST PAIR *tmp;
    bool more;

    show_derwin(win);
Index: test/ncurses.c
Prereq: 1.538
--- ncurses-6.5-20240928+/test/ncurses.c 2023-11-11 01:23:59.000000000 +0000
+++ ncurses-6.5-20241006/test/ncurses.c 2024-10-06 20:18:59.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 2018-2022,2023 Thomas E. Dickey
+ * Copyright 2018-2023,2024
Thomas E. Dickey
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```

@@ -41,7 +41,7 @@

Author: Eric S. Raymond <esr@snark.thyrsus.com> 1993

Thomas E. Dickey (beginning revision 1.27 in 1996).

-\$Id: ncurses.c,v 1.538 2023/11/11 01:23:59 tom Exp \$

+\$Id: ncurses.c,v 1.541 2024/10/06 20:18:59 tom Exp \$

*****/

@@ -273,7 +273,7 @@

++x;

break;

default:

- if (!isprint(ch) || ch >= KEY_MIN) {

+ if (!isprint(UChar(ch)) || ch >= KEY_MIN) {

beep();

} else if ((int) strlen(buffer) < limit) {

int j;

@@ -928,7 +928,7 @@

/* at least Solaris SVR4 curses breaks unctrl(128), etc. */

c2 &= 0x7f;

#endif

- if (isprint(c))

+ if (isprint(UChar(c)))

(void)

wprintw(win, "%c", UChar(c));

else if (c2 != UChar(c))

(void) wprintw(win, "M-%s", unctrl(c2));

@@ -1693,7 +1693,7 @@

chtype extras = (chtype) ac;

if (UseColors) {

- NCURSES_PAIRS_T pair = 0;

+ NCURSES_PAIRS_T pair;

if ((fg != COLOR_BLACK) || (bg != COLOR_BLACK)) {

pair = 1;

if (init_pair(pair, fg, bg) == ERR) {

@@ -2345,7 +2345,6 @@

for (i = (NCURSES_PAIRS_T) (base_row * per_row); i < pairs_max; i++) {

int row = grid_top + (i / per_row) - base_row;

int col = (i % per_row + 1) * width;

- NCURSES_PAIRS_T pair = i;

if ((i / per_row) > row_limit)

break;

@@ -2355,6 +2354,7 @@

if (row >= 0 && move(row, col) != ERR) {

NCURSES_COLOR_T fg = (NCURSES_COLOR_T) InxToFG(i);

```

NCURSES_COLOR_T bg = (NCURSES_COLOR_T) InxToBG(i);
+ NCURSES_PAIRS_T pair = i;

init_pair(pair, fg, bg);
attron(COLOR_PAIR(pair));
@@ -2517,7 +2517,7 @@
static int
x_color_test(bool recur GCC_UNUSED)
{
- long i;
+ int i;

int top = 0, width;
int base_row = 0;
int grid_top = top + 3;
@@ -2613,17 +2613,17 @@
/* show color names/numbers across the top */
for (i = 0; i < per_row; i++) {
show_color_name(top + 2,
- ((int) i + 1) * width,
- (int) i * zoom_size + MinColors,
+ (i + 1) * width,
+ i * zoom_size + MinColors,
opt_wide,
opt_zoom);
}

/* show a grid of colors, with color names/ numbers on the left */
for (i = (base_row * per_row); i < pairs_max; i++) {
- int row = grid_top + ((int) i / per_row) - base_row;
- int col = ((int) i % per_row + 1) * width;
- int pair = (int) i;
+ int row = grid_top + (i / per_row) - base_row;
+ int col = (i % per_row + 1) * width;
+ int pair = i;

if ((i / per_row) > row_limit)
break;
@@ -2828,7 +2828,7 @@
#define DecodeRGB(n) (NCURSES_COLOR_T) ((n * 1000) / 0xffff)

static void
-init_all_colors(bool xterm_colors, char *palette_file)
+init_all_colors(bool xterm_colors, NCURSES_CONST
char *palette_file)
{
NCURSES_PAIRS_T cp;
all_colors = typeMalloc(RGB_DATA, (unsigned) MaxColors);

```

```

@@ -3317,7 +3317,7 @@
{
    int c, fmt = 1;
    char buf[9];
-   char *s;
+   NCURSES_CONST char *s;
    attr_t attr = A_NORMAL;
    unsigned at_code = 0;
#if HAVE_SLK_COLOR
@@ -3938,8 +3938,7 @@

    *dst = *src;
    do {
-   int count;
-   TEST_CCHAR(src, count, {
+   TEST_CCHAR(src, {
        attr |= (test_attrs & A_ALTCHARSET);
        setcchar(dst, test_wch, attr, pair, NULL);
    }, {
@@ -4810,7 +4809,8 @@
/* Ask user for a window definition */
{
    WINDOW *rwindow;
-   pair ul, lr, *tmp;
+   pair ul, lr;
+   NCURSES_CONST pair *tmp;

    move(0, 0);
    clrtoeol();
@@ -5014,7 +5014,8 @@
#if HAVE_WRESIZE
case CTRL('X'): /* resize window */
    if (current) {
-   pair *tmp, ul, lr;
+   NCURSES_CONST pair *tmp;
+   pair ul, lr;
        int mx, my;

        move(0, 0);
@@ -5249,7 +5250,7 @@
}

static void
-fill_panel(PANEL *pan)
+fill_panel(NCURSES_CONST PANEL
*pan)
{
    WINDOW *win = panel_window(pan);

```

```

    const char *userptr = (const char *) panel_userptr(pan);
@@ -5286,7 +5287,7 @@
}

static void
-fill_wide_panel(PANEL *pan)
+fill_wide_panel(NCURSES_CONST PANEL *pan)
{
    WINDOW *win = panel_window(pan);
    const char *userptr = (const char *) panel_userptr(pan);
@@ -5336,7 +5337,7 @@
}

static int
-demo_panels(void (*InitPanel) (WINDOW *), void (*FillPanel) (PANEL *))
+demo_panels(void (*InitPanel) (WINDOW *), void (*FillPanel) (NCURSES_CONST PANEL *))
{
    int count;
    int itmp;
@@ -6246,7 +6247,8 @@
run_trace_menu(MENU * m)
{
    ITEM **items;
-   ITEM *i, **p;
+   NCURSES_CONST ITEM *i;
+   ITEM **p;

    for (;;) {
        bool changed = FALSE;
@@ -6424,7 +6426,7 @@

        if (field_info(me, &rows, &cols, &frow, &fcol, &nrow, &nbuf) == E_OK
&& nbuf > 0) {
-   char *source = field_buffer(me, 1);
+   NCURSES_CONST char *source = field_buffer(me, 1);
    size_t have = (source ? strlen(source) : 0) + 1;
    size_t need
        = 80 + have;
    char *temp = malloc(need);
@@ -6434,7 +6436,7 @@
    _nc_STRNCPY(temp, source ? source : "", have + 1);
    len = (size_t) (char *) field_userptr(me);
    if (c <= KEY_MAX) {
-   if (isgraph(c) && (len + 1) < sizeof(temp)) {
+   if (isgraph(UChar(c)) && (len + 1) < sizeof(temp)) {
        temp[len++] = (char) c;
        temp[len] = 0;
        set_field_buffer(me, 1, temp);

```

```
@@ -6484,7 +6486,7 @@
```

```
}
```

```
static int
```

```
-form_virtualize(FORM *f, WINDOW *w)
```

```
+form_virtualize(NCURSES_CONST FORM *f, WINDOW *w)
```

```
{
```

```
    /* *INDENT-OFF* */
```

```
    static const struct {
```

```
@@ -6658,7 +6660,7 @@
```

```
static
```

```
FIELDCHECK_CB(pw_field_check)
```

```
{
```

```
-    char *s = field_buffer(fld, 0);
```

```
+    NCURSES_CONST char *s = field_buffer(fld, 0);
```

```
    int n;
```

```
    for (n = 0; s[n] != '\0'; ++n) {
```

```
@@ -6680,7 +6682,8 @@
```

```
form_test(bool recur GCC_UNUSED)
```

```
{
```

```
    FORM *form;
```

```
-    FIELD *f[12], *secure;
```

```
+    FIELD *f[12];
```

```
+    NCURSES_CONST FIELD *secure;
```

```
    FIELDTYPE *fty_middle = new_fieldtype(mi_field_check, mi_char_check);
```

```
    FIELDTYPE *fty_passwd = new_fieldtype(pw_field_check, pw_char_check);
```

```
    int c;
```

```
@@ -7176,7 +7179,7 @@
```

```
}
```

```
static void
```

```
-overlap_test_4(int flavor, WINDOW *a, WINDOW *b)
```

```
+overlap_test_4(int flavor, NCURSES_CONST WINDOW *a, WINDOW *b)
```

```
{
```

```
    switch ((otCOPY) flavor) {
```

```
        case otCOPY_overwrite:
```

```
@@ -7899,7 +7902,7 @@
```

```
        bool monochrome = FALSE;
```

```
#if HAVE_COLOR_CONTENT
```

```
        bool xterm_colors = FALSE;
```

```
-    char *palette_file = 0;
```

```
+    NCURSES_CONST char *palette_file = 0;
```

```
#endif
```

```
        setlocale(LC_ALL, "");
```

```
Index: test/padview.c
```

```
Prereq: 1.22
```



```

--- ncurses-6.5-20240928+/test/padview.c 2022-12-04 00:40:11.000000000 +0000
+++ ncurses-6.5-20241006/test/padview.c 2024-10-06 21:08:25.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 2019-2021,2022 Thomas E. Dickey                      *
+ * Copyright 2019-2022,2024 Thomas E. Dickey                      *
 * Copyright 2017 Free
Software Foundation, Inc.                                *
*                                                                *
 * Permission is hereby granted, free of charge, to any person obtaining a *
@@ -29,7 +29,7 @@
/*
 * clone of view.c, using pads
 *
- * $Id: padview.c,v 1.22 2022/12/04 00:40:11 tom Exp $
+ * $Id: padview.c,v 1.24 2024/10/06 21:08:25 tom Exp $
 */

#include <test.priv.h>
@@ -182,7 +182,7 @@

#if USE_WIDEC_SUPPORT
    if (!memcmp("\357\273\277", my_blob, 3)) {
- char *s = my_blob + 3;
+ const char *s = my_blob + 3;
    char *d = my_blob;
    Trace(("trim BOM"));
    do {
@@ -213,7 +213,7 @@
        for (k = 0; my_vec[k]; ++k) {
            char *s;
#if USE_WIDEC_SUPPORT
- char *last = my_vec[k] + (int) strlen(my_vec[k]);
+ const char *last = my_vec[k] + (int) strlen(my_vec[k]);
            wchar_t wch[2];
            size_t rc;
#ifdef state_unused
@@ -279,7 +279,7 @@
@@ -279,7 +279,7 @@
int
main(int argc, char *argv[])
{
- static const char *help[] =
+ static NCURSES_CONST char *help[] =

    {
        "Commands:",
        " q,^Q,ESC      - quit this program",
@@ -532,7 +532,7 @@

```

```

    beep();
    break;
}
- if (c >= KEY_MIN || (c > 0 && !isdigit(c))) {
+ if (c >= KEY_MIN || (c > 0 && !isdigit(UChar(c)))) {
    got_number = FALSE;
    value = 0;
}
Index: test/parse_rgb.h
Prereq: 1.5
--- ncurses-6.5-20240928+/test/parse_rgb.h 2020-02-02 23:34:34.000000000 +0000
+++ ncurses-6.5-20241006/test/parse_rgb.h 2024-10-05 19:26:24.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 1988, 1998, 2004 Thomas E. Dickey
+ * Copyright 1988, 1998, 2004, 2024 Thomas E. Dickey
*
* Permission is hereby granted, free of charge, to any person obtaining a
* copy of this software and associated documentation files (the
@@ -26,7 +26,7 @@
* authorization.
*
*****/
/*
- * $Id: parse_rgb.h,v 1.5 2020/02/02 23:34:34 tom Exp $
+ * $Id: parse_rgb.h,v 1.6 2024/10/05 19:26:24 tom Exp $
*
* Sample implementation of ncurses RGB extension from user_caps(5).
*/
@@ -49,7 +49,7 @@
int bits;
int pwr2;
int r = 0, g = 0, b = 0;
- char *data;
+ const char *data;
char ch;

for (max_bits = 0, pwr2 = 1;
Index: test/picsmap.c
Prereq: 1.149
--- ncurses-6.5-20240928+/test/picsmap.c 2023-04-23 23:20:37.000000000 +0000
+++ ncurses-6.5-20241006/test/picsmap.c 2024-10-05 19:26:24.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 1988-2022, 2023 Thomas E. Dickey
+ * Copyright 1988-2023, 2024 Thomas E. Dickey
* Copyright 1988-2023, 2024 Thomas E. Dickey
* Copyright 1988-2023, 2024 Thomas E. Dickey
* Copyright 2017, 2018 Free Software Foundation, Inc.
*
*****/

```

```

*
* Permission is hereby granted, free of charge, to any person obtaining a
@@ -27,7 +27,7 @@
* authorization.
*****/
/*
- * $Id: picsmap.c,v 1.149 2023/04/23 23:20:37 tom Exp $
+ * $Id: picsmap.c,v 1.150 2024/10/05 19:26:24 tom Exp $
*
* Author: Thomas E. Dickey
*
@@ -574,7 +574,7 @@
    _nc_STRCAT(full_name, filename, need);
    if (tries & 4) {
        char *t = s;
- char *tc;
+ const char *tc;
        int num;
        char chr;
        int found = 0;
@@ -1374,8 +1374,8 @@
        int r, g, b, nocolor;
        float rf, gf, bf;
        unsigned check;
- char *t;
- char *s = t = strchr(buffer, '#');
+ char *s = strchr(buffer, '#');
+ const char *t = s;
        bool matched = FALSE;

        if (s != 0) {
@@ -1492,7 +1492,7 @@
#define fg_color(pics,n) (pics->fgcol[n].fgcol)

static void
-dump_picture(PICS_HEAD
+dump_picture(const PICS_HEAD * pics)
* pics)
{
    int y, x;

@@ -1767,7 +1767,7 @@
#if USE_EXTENDED_COLORS
case 'x':
{
- char *s = optarg;
+ const char *s = optarg;
while (*s) {

```

```

        switch (*s++) {
        case 'p':
Index: test/popup_msg.c
Prereq: 1.12
--- ncurses-6.5-20240928+/test/popup_msg.c 2024-06-29 18:34:58.000000000 +0000
+++ ncurses-6.5-20241006/test/popup_msg.c 2024-10-06 21:07:01.000000000 +0000
@@ -27,7 +27,7 @@
* authorization.
*
*****/
/*
- * $Id: popup_msg.c,v 1.12 2024/06/29 18:34:58 tom Exp $
+ * $Id: popup_msg.c,v 1.13 2024/10/06 21:07:01 tom Exp $
*
* Show a multi-line message in a window which may extend beyond the screen.
*
@@@ -62,7 +62,7 @@@
* Display a temporary window, e.g., to display a help-message.
*/
void
-popup_msg(WINDOW *parent, const char *const *msg)
+popup_msg(WINDOW *parent, NCURSES_CONST
char *const *msg)
{
    int x0 = 4;
    int y0 = 2;
@@@ -171,12 +171,12 @@@
void
popup_msg2(WINDOW *parent, char **msg)
{
-    popup_msg(parent, (const char *const *) msg);
+    popup_msg(parent, (NCURSES_CONST char *const *) msg);
}

#else
void
-popup_msg(WINDOW *parent, const char *const *msg)
+popup_msg(WINDOW *parent, NCURSES_CONST char *const *msg)
{
    (void) parent;
    (void) msg;
Index: test/popup_msg.h
Prereq: 1.5
--- ncurses-6.5-20240928+/test/popup_msg.h 2020-02-02 23:34:34.000000000 +0000
+++ ncurses-6.5-20241006/test/popup_msg.h 2024-10-06 21:17:54.000000000 +0000
@@@ -1,5 +1,5 @@@
/*****
- * Copyright 2018,2020 Thomas E. Dickey
*
+ * Copyright 2018-2020,2024 Thomas E. Dickey
*

```

```

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*
*
*
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@@ -27,7 +27,7 @@
* authorization.
*****/
/*
- * $Id: popup_msg.h,v 1.5 2020/02/02 23:34:34 tom Exp $
+ * $Id: popup_msg.h,v 1.6 2024/10/06 21:17:54 tom Exp $
*
* Utility functions for a popup-message or help-screen.
*/
@@ -37,7 +37,7 @@

#include <test.priv.h>

extern void popup_msg(WINDOW *parent, const char *const *msg);
+extern void popup_msg(WINDOW *parent, NCURSES_CONST char *const *msg);
extern void popup_msg2(WINDOW *parent, char **msg);

#endif /* POPUP_MSG_H_incl */
Index: test/railroad.c
Prereq: 1.26
--- ncurses-6.5-20240928+/test/railroad.c 2022-12-11 00:12:13.000000000 +0000
+++ ncurses-6.5-20241006/test/railroad.c 2024-10-05 19:26:24.000000000 +0000
@@ -1,5 +1,5 @@
/*****
-
* Copyright 2019-2020,2022 Thomas E. Dickey
+ * Copyright 2019-2022,2024 Thomas E. Dickey
* Copyright 2000-2013,2017 Free Software Foundation, Inc.
*
* Permission is hereby granted, free of charge, to any person obtaining a
@@ -30,7 +30,7 @@
/*
* Author: Thomas E. Dickey - 2000
*
- * $Id: railroad.c,v 1.26 2022/12/11 00:12:13 tom Exp $
+ * $Id: railroad.c,v 1.27 2024/10/05 19:26:24 tom Exp $
*
* A simple demo of the termcap interface.
*/
@@ -113,7 +113,7 @@
static void
ShowSign(char *string)
{
- char *base = string;

```

```

+  const char *base = string;
    int first, last;

    if (moveit != 0) {
Index: test/rain.c
Prereq: 1.58
--- ncurses-6.5-20240928+/test/rain.c 2024-08-31 15:56:10.000000000 +0000
+++ ncurses-6.5-20241006/test/rain.c 2024-10-06 21:09:00.000000000 +0000
@@ -27,7 +27,7
@@
* authorization.
*****/
/*
- * $Id: rain.c,v 1.58 2024/08/31 15:56:10 tom Exp $
+ * $Id: rain.c,v 1.62 2024/10/06 21:09:00 tom Exp $
*/
#include <test.priv.h>
#include <popup_msg.h>
@@ -45,7 +45,7 @@

struct DATA;

-typedef void (*DrawPart) (struct DATA *);
+typedef void (*DrawPart) (const struct DATA *);

typedef struct DATA {
    int y, x;
@@ -118,25 +118,25 @@
}

static void
-part1(DATA * drop)
+part1(const DATA * drop)
{
    MvAddCh(drop->y, drop->x, '.');
}

static void
-part2(DATA * drop)
+part2(const DATA * drop)
{
    MvAddCh(drop->y, drop->x, 'o');
}

static void
-part3(DATA * drop)
+part3(const DATA * drop)
{

```

```

    MvAddCh(drop->y, drop->x, 'O');
}

static void
-part4(DATA * drop)
+part4(const DATA * drop)
{
    MvAddCh(drop->y - 1, drop->x, '-');
    MvAddStr(drop->y, drop->x - 1, "|.");
@@ -144,7 +144,7 @@
}

static void
-part5(DATA * drop)
+part5(const DATA * drop)
{
    MvAddCh(drop->y - 2, drop->x, '-');
    MvAddStr(drop->y - 1, drop->x - 1, "/\\");
@@ -154,7 +154,7 @@
}

static void
-part6(DATA * drop)
+part6(const DATA * drop)
{
    MvAddCh(drop->y - 2, drop->x, ' ');
    MvAddStr(drop->y - 1, drop->x - 1, " ");
@@ -186,7 +186,7 @@
}

static void
-draw_part(void (*func) (DATA *), int state, DATA * data)
+draw_part(void (*func) (const DATA *), int state, DATA * data)
{
    data->func = func;
    data->state = state;
@@ -328,7 +328,7 @@
int
main(int argc, char *argv[])
{
-    static const char *help[] =
+    static NCURSES_CONST char *help[] =
    {
        "Commands:",
        " q/Q      exit the program",
Index: test/redraw.c
Prereq: 1.17
--- ncurses-6.5-20240928+/test/redraw.c 2022-12-10 22:28:50.000000000 +0000

```

```

+++ ncurses-6.5-20241006/test/redraw.c 2024-10-06 21:17:54.000000000 +0000
@@ -1,5 +1,5 @@
/*****
-
* Copyright 2020-2021,2022 Thomas E. Dickey                      *
+ * Copyright 2020-2022,2024 Thomas E. Dickey                      *
* Copyright 2006-2012,2017 Free Software Foundation, Inc.        *
*                                                                    *
* Permission is hereby granted, free of charge, to any person obtaining a *
@@ -27,7 +27,7 @@
* authorization.                                                  *
*****/
/*
- * $Id: redraw.c,v 1.17 2022/12/10 22:28:50 tom Exp $
+ * $Id: redraw.c,v 1.18 2024/10/06 21:17:54 tom Exp $
*
* Demonstrate the redrawwin() and wredrawln() functions.
* Thomas Dickey - 2006/11/4
@@ -61,7 +61,7 @@
static void
test_redraw(WINDOW *win)
{
- static const char *help[] =
+ static NCURSES_CONST char *help[] =
{
"Commands:",
" ^Q/ESC/q - quit",
Index: test/savescreen.c
Prereq:
1.62
--- ncurses-6.5-20240928+/test/savescreen.c 2022-12-10 23:23:27.000000000 +0000
+++ ncurses-6.5-20241006/test/savescreen.c 2024-10-06 21:10:09.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 2018-2021,2022 Thomas E. Dickey                      *
+ * Copyright 2018-2022,2024 Thomas E. Dickey                      *
* Copyright 2006-2017,2018 Free Software Foundation, Inc.        *
*                                                                    *
* Permission is hereby granted, free of charge, to any person obtaining a *
@@ -27,7 +27,7 @@
* authorization.                                                  *
*****/
/*
- * $Id: savescreen.c,v 1.62 2022/12/10 23:23:27 tom Exp $
+ * $Id: savescreen.c,v 1.65 2024/10/06 21:10:09 tom Exp $
*
* Demonstrate save/restore functions

```



```

from the curses library.
* Thomas Dickey - 2007/7/14
@@ -96,7 +96,7 @@
}

static int
-load_screen(char *filename)
+load_screen(NCURSES_CONST char *filename)
{
    int result;

@@ -170,7 +170,7 @@
#if USE_WIDEC_SUPPORT
    cchar_t mycc;
#endif
-   char *filename = files[which];
+   NCURSES_CONST char *filename = files[which];
    bool dumped = FALSE;

    if (filename != 0) {
@@ -216,7 +216,7 @@
static void
editor_help(void)
{
-   static const char *msgs[] =
+   static NCURSES_CONST char *msgs[] =
    {
        "You are now in the screen-editor, which allows you to make some",
        "lines on the screen, as well as save copies of the screen to a",
@@ -238,7 +238,7 @@
static void
replay_help(void)
{
-   static const char *msgs[] =
+   static NCURSES_CONST char *msgs[] =
    {
        "You are now in the screen-loader, which allows you to view",
        "the dumped/restored screens.",
@@ -286,7 +286,7 @@
    bool replaying = FALSE;
    bool done = FALSE;
    char **files;
-
    char *fill_by = 0;
+   NCURSES_CONST char *fill_by = 0;
#if USE_WIDEC_SUPPORT
    cchar_t mycc;
    static const wchar_t mywc[2] =

```

```

Index: test/tclock.c
Prereq: 1.48
--- ncurses-6.5-20240928+/test/tclock.c 2023-02-25 16:42:22.000000000 +0000
+++ ncurses-6.5-20241006/test/tclock.c 2024-10-05 18:47:56.000000000 +0000
@@ -1,4 +1,4 @@
-/* $Id: tclock.c,v 1.48 2023/02/25 16:42:22 tom Exp $ */
+/* $Id: tclock.c,v 1.49 2024/10/05 18:47:56 tom Exp $ */

#define NEED_TIME_H
#include <test.priv.h>
@@ -145,7 +145,7 @@
    int lastbeep = -1;
    bool odd = FALSE;
    time_t tim;
-   struct tm *t;
+   const struct tm *t;
    char szChar[20];
    char *text;
    short my_bg = COLOR_BLACK;
Index: test/test.priv.h
Prereq: 1.219
--- ncurses-6.5-20240928+/test/test.priv.h 2024-08-31 10:46:01.000000000 +0000
+++ ncurses-6.5-20241006/test/test.priv.h 2024-10-05 19:01:00.000000000 +0000
@@ -30,7 +30,7 @@
/*****
 * Author: Thomas E. Dickey          1996-on          *
 *****/
-/* $Id: test.priv.h,v 1.219 2024/08/31 10:46:01 Rafael.Kitover Exp $ */
+/* $Id: test.priv.h,v 1.220 2024/10/05 19:01:00 tom Exp $ */

#ifndef __TEST_PRIV_H
#define __TEST_PRIV_H 1
@@ -765,8 +765,8 @@

#define VERSION_COMMON() \
static char *version_common(char **argv) { \
- char *base = argv[0]; \
- char *part = strrchr(base, '/'); \
+ const char *base = argv[0]; \
+ const char *part = strrchr(base, '/'); \
    size_t need = strlen(base) + 80; \
    char *result = malloc(need); \
    if (result != NULL) { \
@@ -916,8 +916,8 @@
    * Workaround in case getcchar() returns a positive value when the source
    * string produces only a L'\0'.
    */
-#define TEST_CCHAR(s, count, then_stmt, else_stmt) \

```

```
- if ((count = getcchar(s, NULL, NULL, NULL, NULL)) > 0) { \
#define TEST_CCHAR(s, then_stmt, else_stmt) \
+ if (getcchar(s, NULL, NULL,
NULL, NULL) > 0) { \
    wchar_t test_wch[CCHARW_MAX + 2]; \
    attr_t test_attrs; \
    NCURSES_PAIRS_T test_pair; \
```

Index: test/test_add_wchstr.c

Prereq: 1.34

--- ncurses-6.5-20240928+/test/test_add_wchstr.c 2022-12-10 22:28:50.000000000 +0000

+++ ncurses-6.5-20241006/test/test_add_wchstr.c 2024-10-05 19:26:24.000000000 +0000

@@ -1,5 +1,5 @@

/*****

```
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* *
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```

@@ -27,7 +27,7 @@

```
* authorization. *
```

*****/

/*

```
- * $Id: test_add_wchstr.c,v 1.34 2022/12/10 22:28:50 tom Exp $
```

```
+ * $Id: test_add_wchstr.c,v 1.35 2024/10/05 19:26:24 tom Exp $
```

*

```
* Demonstrate the waddwchstr() and wadd_wch functions.
```

```
* Thomas Dickey - 2009/9/12
```

@@ -158,7 +158,7 @@

}

static void

```
-legend(WINDOW *win, int level, Options state, wchar_t *buffer, int length)
```

```
+legend(WINDOW *win, int level, Options state, const wchar_t *buffer, int length)
```

```
{
```

```
    const char *showstate;
```

Index: test/test_addchstr.c

Prereq: 1.29

--- ncurses-6.5-20240928+/test/test_addchstr.c 2022-12-10 22:28:50.000000000 +0000

+++ ncurses-6.5-20241006/test/test_addchstr.c 2024-10-05 19:26:24.000000000 +0000

@@ -1,5 +1,5 @@

/*****

```
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* *
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```

@@ -27,7 +27,7 @@

```

* authorization.
*
*****/
/*
- * $Id: test_addchstr.c,v 1.29 2022/12/10 22:28:50 tom Exp $
+ * $Id: test_addchstr.c,v 1.30 2024/10/05 19:26:24 tom Exp $
*
* Demonstrate the waddchstr() and waddch functions.
* Thomas Dickey - 2009/9/12
@@ -169,7 +169,7 @@
}

static int
-ColOf(char *buffer, int length, int margin)
+ColOf(const char *buffer, int length, int margin)
{
    int n;
    int result;
Index: test/test_addstr.c
Prereq: 1.20
--- ncurses-6.5-20240928+/test/test_addstr.c 2022-12-10 22:28:50.000000000 +0000
+++ ncurses-6.5-20241006/test/test_addstr.c 2024-10-05 19:27:33.000000000 +0000
@@ -1,5 +1,5 @@
/******
-
* Copyright 2020,2022 Thomas E. Dickey
*
+ * Copyright 2020-2022,2024 Thomas E. Dickey
*
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*
* Permission is hereby granted, free of charge, to any person obtaining a
@@ -27,7 +27,7 @@
* authorization.
*
*****/
/*
- * $Id: test_addstr.c,v 1.20 2022/12/10 22:28:50 tom Exp $
+ * $Id: test_addstr.c,v 1.21 2024/10/05 19:27:33 tom Exp $
*
* Demonstrate the waddstr() and waddch functions.
* Thomas Dickey - 2009/9/12
@@ -91,7 +91,7 @@
}

static int
-ColOf(char *buffer, int length, int margin)
+ColOf(const char *buffer, int length, int margin)
{
    int n;
    int result;
Index: test/test_addwstr.c

```

Prereq: 1.22

ncurses-6.5-20240928+/test/test_addwstr.c 2023-05-27 20:13:10.000000000 +0000
+++ ncurses-6.5-20241006/test/test_addwstr.c 2024-10-05 19:27:33.000000000 +0000
@@ -1,5 +1,5 @@

/*****

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@@ -27,7 +27,7 @@

* authorization. *

*****/

/*

- * \$Id: test_addwstr.c,v 1.22 2023/05/27 20:13:10 tom Exp \$
+ * \$Id: test_addwstr.c,v 1.23 2024/10/05 19:27:33 tom Exp \$
*

* Demonstrate the waddwstr() and wadd_wch
functions.

* Thomas Dickey - 2009/9/12

@@ -82,7 +82,7 @@

static int n_opt = -1;

static void

-legend(WINDOW *win, int level, Options state, wchar_t *buffer, int length)
+legend(WINDOW *win, int level, Options state, const wchar_t *buffer, int length)
{

const char *showstate;

Index: test/test_endwin.c

Prereq: 1.2

--- ncurses-6.5-20240928+/test/test_endwin.c 2023-11-10 15:17:19.000000000 +0000
+++ ncurses-6.5-20241006/test/test_endwin.c 2024-10-05 19:27:33.000000000 +0000
@@ -1,5 +1,5 @@

/*****

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* *
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* copy of this software and associated documentation files (the *

@@ -26,7 +26,7 @@

* authorization. *

*****/

/*

- * \$Id: test_endwin.c,v 1.2 2023/11/10 15:17:19 tom Exp \$
+ * \$Id: test_endwin.c,v 1.3 2024/10/05 19:27:33 tom Exp \$
*/

```
#include <test.priv.h>
```

```
@@ -67,7 +67,7 @@
```

```
int rc_e1 = OK;
```

```
int rc_e2 = OK;
```

```
int rc_e3 = OK;
```

```
- SCREEN *sp = NULL;
```

```
+ const SCREEN *sp = NULL;
```

```
bool opt_e = FALSE;
```

```
bool opt_i = FALSE;
```

```
bool opt_n = FALSE;
```

```
Index: test/test_get_wstr.c
```

```
Prereq: 1.14
```

```
--- ncurses-6.5-20240928+/test/test_get_wstr.c 2022-12-10 23:59:13.000000000 +0000
```

```
+++ ncurses-6.5-20241006/test/test_get_wstr.c 2024-10-06 23:15:10.000000000 +0000
```

```
@@ -1,5 +1,5 @@
```

```
/******
```

```
- * Copyright 2020,2022 Thomas E. Dickey *
```

```
+ * Copyright 2020-2022,2024 Thomas E. Dickey *
```

```
* Copyright 2007-2011,2017
```

```
Free Software Foundation, Inc. *
```

```
* *
```

```
* Permission is hereby granted, free of charge, to any person obtaining a *
```

```
@@ -27,7 +27,7 @@
```

```
* authorization. *
```

```
*****/
```

```
/*
```

```
- * $Id: test_get_wstr.c,v 1.14 2022/12/10 23:59:13 tom Exp $
```

```
+ * $Id: test_get_wstr.c,v 1.16 2024/10/06 23:15:10 tom Exp $
```

```
*
```

```
* Author: Thomas E Dickey
```

```
*
```

```
@@ -69,7 +69,7 @@
```

```
}
```

```
static int
```

```
-Remainder(WINDOW *txtwin)
```

```
+Remainder(const WINDOW *txtwin)
```

```
{
```

```
int result = getmaxx(txtwin) - getcurx(txtwin);
```

```
return (result > 0) ? result : 0;
```

```
@@@ -138,7 +138,7 @@@
```

```
static int
```

```
recursive_test(int level, char **argv, WINDOW *strwin)
```

```
{
```

```
- static const char *help[] =
```

```
+ static NCURSES_CONST char *help[] =
```

```
{
```

```

"Commands:",
" q,^Q,ESC - quit this program",
Index: test/test_getstr.c
Prereq:
1.16
--- ncurses-6.5-20240928+/test/test_getstr.c 2022-12-10 23:58:37.000000000 +0000
+++ ncurses-6.5-20241006/test/test_getstr.c 2024-10-06 22:36:46.000000000 +0000
@@ -1,5 +1,5 @@
/*****
- * Copyright 2020,2022 Thomas E. Dickey *
+ * Copyright 2020-2022,2024 Thomas E. Dickey *
* Copyright 2007-2012,2017 Free Software Foundation, Inc. *
*
* Permission is hereby granted, free of charge, to any person obtaining a *
@@ -27,7 +27,7 @@
* authorization. *
*****/
/*
- * $Id: test_getstr.c,v 1.16 2022/12/10 23:58:37 tom Exp $
+ * $Id: test_getstr.c,v 1.19 2024/10/06 22:36:46 tom Exp $
*
* Author: Thomas E Dickey
*
@@ -76,7 +76,7 @@
}

static int
-Remainder(WINDOW *txtwin)
+Remainder(NCURSES_CONST WINDOW *txtwin)
{
    int result = getmaxx(txtwin) - getcurx(txtwin);
    return (result > 0) ? result : 0;
@@ -145,7 +145,7 @@
static int
recursive_test(int level, char **argv, WINDOW *strwin)
{
-    static const char *help[] =
+    static NCURSES_CONST char *help[] =
    {
        "Commands:",
        " q,^Q,ESC - quit this program",
Index: test/test_instr.c
Prereq: 1.13
--- ncurses-6.5-20240928+/test/test_instr.c 2024-06-29 18:42:53.000000000 +0000
+++ ncurses-6.5-20241006/test/test_instr.c 2024-10-06 21:11:54.000000000 +0000
@@ -27,7 +27,7 @@
* authorization. *
*****/

```

```

/*
- * $Id: test_instr.c,v 1.13 2024/06/29 18:42:53 tom Exp $
+ * $Id: test_instr.c,v 1.15 2024/10/06 21:11:54 tom Exp $
*
* Author: Thomas E Dickey
*
@@ -56,13 +56,13 @@
}

static
void
-show_1st(WINDOW *win, int line, char *buffer)
+show_1st(WINDOW *win, int line, NCURSES_CONST char *buffer)
{
    MvWAddStr(win, line, 5, buffer);
}

static void
-showmore(WINDOW *win, int line, char *buffer)
+showmore(WINDOW *win, int line, NCURSES_CONST char *buffer)
{
    wmove(win, line, 0);
    wclrtoeol(win);
@@ -72,7 +72,7 @@
static void
show_help(WINDOW *win)
{
- static const char *msgs[] =
+ static NCURSES_CONST char *msgs[] =
    {
        "Show file contents and a viewport from the variants of winstr."
        ,"Use h/j/k/l or arrow keys to move the viewport."
Index: test/test_inwstr.c
Prereq: 1.9
--- ncurses-6.5-20240928+/test/test_inwstr.c 2024-06-29 18:40:02.000000000 +0000
+++ ncurses-6.5-20241006/test/test_inwstr.c 2024-10-06 23:15:38.000000000 +0000
@@ -27,7 +27,7 @@
* authorization.
*
*****/
/*
- * $Id: test_inwstr.c,v
1.9 2024/06/29 18:40:02 tom Exp $
+ * $Id: test_inwstr.c,v 1.11 2024/10/06 23:15:38 tom Exp $
*
* Author: Thomas E Dickey
*
@@ -59,13 +59,13 @@
}

```



```
static void
-show_1st(WINDOW *win, int line, wchar_t *buffer)
+show_1st(WINDOW *win, int line, const wchar_t *buffer)
{
    (void) mvwaddwstr(win, line, 5, buffer);
}
```

```
static void
-showmore(WINDOW *win, int line, wchar_t *buffer)
+showmore(WINDOW *win, int line, const wchar_t *buffer)
{
```

```
    wmove(win, line, 0);
    wclrtoeol(win);
@@ -75,7 +75,7 @@
```

```
static void
show_help(WINDOW *win)
{
```

```
- static const char *msgs[] =
+ static NCURSES_CONST char *msgs[] =
{
```

```
"Show file contents and a viewport from the variants of winwstr."
,"Use h/j/k/l or arrow keys to move the viewport."
```

Index: test/test_mouse.c

Prereq: 1.32

--- ncurses-6.5-20240928+/test/test_mouse.c 2024-08-31 10:46:01.000000000 +0000

+++ ncurses-6.5-20241006/test/test_mouse.c 2024-10-05 18:47:56.000000000 +0000

@@ -22,7 +22,7 @@

* THE USE OR OTHER DEALINGS

IN THE SOFTWARE.

*

*****/

/*

- * \$Id: test_mouse.c,v 1.32 2024/08/31 10:46:01 Rafael.Kitover Exp \$

+ * \$Id: test_mouse.c,v 1.33 2024/10/05 18:47:56 tom Exp \$

*

* Author: Leonid S Usov

*

@@ -38,7 +38,7 @@

```
static void
```

```
raw_loop(void)
```

```
{
```

```
- char *xtermcap;
```

```
+ const char *xtermcap;
```

```
    printf("Entering raw mode. Ctrl-c to quit.\n");
```

Index: test/test_opaque.c

Prereq: 1.15

```

--- ncurses-6.5-20240928+/test/test_opaque.c 2022-12-11 00:03:10.000000000 +0000
+++ ncurses-6.5-20241006/test/test_opaque.c 2024-10-05 19:27:33.000000000 +0000
@@ -1,5 +1,5 @@
/*****
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*
*
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@@ -27,7 +27,7 @@
* authorization.
*****/
/*
- * $Id: test_opaque.c,v 1.15 2022/12/11 00:03:10 tom Exp $
+ * $Id: test_opaque.c,v 1.16 2024/10/05 19:27:33 tom Exp $
*
* Author: Thomas E Dickey
*
@@ -157,13 +157,13 @@
}

static int
-status_y(WINDOW *stswin, int cell)
+status_y(const WINDOW *stswin, int cell)
{
    return (cell % getmaxy(stswin));
}

static int
-status_x(WINDOW *stswin, int cell)
+status_x(const WINDOW *stswin, int cell)
{
    return (15 * (cell / getmaxy(stswin)));
}
Index: test/test_sgr.c
Prereq: 1.22
--- ncurses-6.5-20240928+/test/test_sgr.c 2023-05-27 20:13:10.000000000 +0000
+++ ncurses-6.5-20241006/test/test_sgr.c 2024-10-06 21:05:50.000000000 +0000
@@ -1,5 +1,5 @@
/*****
-
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+ *
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@@ -30,7 +30,7 @@

```

```

/*
 * Author: Thomas E. Dickey
 *
- * $Id: test_sgr.c,v 1.22 2023/05/27 20:13:10 tom Exp $
+ * $Id: test_sgr.c,v 1.25 2024/10/06 21:05:50 tom Exp $
 *
 * A simple demo of the sgr/sgr0 terminal capabilities.
 */
@@ -142,10 +142,10 @@
#define MASK_REV (1 << 2)

static void
-dumpit(unsigned bits, unsigned ignore, const char *sgr, const char *sgr0)
+dumpit(unsigned bits, unsigned ignore, NCURSES_CONST char *sgr, NCURSES_CONST char *sgr0)
{
- static const char sample[] = "abcdefghijklm";
- static
char params[] = "SURBDBIPA";
+ static NCURSES_CONST char sample[] = "abcdefghijklm";
+ static NCURSES_CONST char params[] = "SURBDBIPA";
    unsigned n;

    printf("%4u ", bits);
@@ -177,12 +177,11 @@
static void
brute_force(const char *name)
{
- unsigned count;
- char *my_sgr;
- char *my_sgr0;
- char *my_bold;
- char *my_revs;
- char *my_smso;
+ NCURSES_CONST char *my_sgr;
+ NCURSES_CONST char *my_sgr0;
+ NCURSES_CONST char *my_bold;
+ NCURSES_CONST char *my_revs;
+ NCURSES_CONST char *my_smso;
    char *my_name = strdup(name);

    if (db_list) {
@@ -219,6 +218,7 @@
@@ -219,6 +218,7 @@
    unsigned ignore = 0;
    unsigned reason = 0;
    unsigned repeat = 0;
+ unsigned count;
    for (count = 0; count < MAXSGR; ++count) {
        values[count] = tparm(my_sgr,

```

```

        BITS2P(1),
@@ -334,7 +334,7 @@
main(int argc, char *argv[])
{
    int ch;
-   char *name;
+   const char *name;

    while ((ch = getopt(argc, argv, OPTS_COMMON "d:e:nq")) != -1) {
switch (ch)
{
@@ -369,7 +369,7 @@
    } else if ((name = getenv("TERM")) != 0) {
brute_force(name);
    } else {
- static char dumb[] = "dumb";
+ static const char dumb[] = "dumb";
brute_force(dumb);
    }

Index: test/test_tparm.c
Prereq: 1.39
--- ncurses-6.5-20240928+/test/test_tparm.c 2023-11-11 01:00:03.000000000 +0000
+++ ncurses-6.5-20241006/test/test_tparm.c 2024-10-06 20:50:27.000000000 +0000
@@ -1,5 +1,5 @@
/*****
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* copy of this software and associated documentation files (the
@@ -29,7 +29,7 @@
/*
* Author: Thomas E. Dickey
*
- * $Id: test_tparm.c,v 1.39 2023/11/11 01:00:03
tom Exp $
+ * $Id: test_tparm.c,v 1.42 2024/10/06 20:50:27 tom Exp $
*
* Exercise tparm/tparm, either for all possible capabilities with fixed
* parameters, or one capability with specific combinations of parameters.
@@ -107,7 +107,7 @@
}

static int
-isNumeric(char *source)
+isNumeric(NCURSES_CONST char *source)
{

```

```

char *next = 0;
long value = strtol(source, &next, 0);
@@ -245,7 +245,7 @@
#define NS_9(fmt) NS_8(fmt), NumStr(8)

static void
-test_tparm(const char *name, const char *format, long *number, char **string)
+test_tparm(const char *name, NCURSES_CONST char *format, long *number, char **string)
{
    char *use_strings[MAX_PARM];
    char *result = NULL;
@@ -527,7 +527,7 @@
    }
} else {
    char *s = t_opt;
-   char *t;
+   NCURSES_CONST char *t;
    while ((t = strtok(s, ",")) != 0) {
        s = 0;
        if (len_terms + 2 >= max_terms) {
@@ -603,7 +603,7 @@
#if NCURSES_XNAMES
    len_caps = std_caps;
    if (cur_term) {
-   TERMTYPE *term =
+   (TERMTYPE *) cur_term;
+   NCURSES_CONST TERMTYPE *term = (TERMTYPE *) cur_term;
    for (n = STRCOUNT; n < NUM_STRINGS(term); ++n) {
        GrowArray(all_caps, max_caps, len_caps);
        GrowArray(cap_name, max_name, len_caps);
Index: test/test_vidputs.c
Prereq: 1.15
--- ncurses-6.5-20240928+/test/test_vidputs.c 2022-12-10 23:23:27.000000000 +0000
+++ ncurses-6.5-20241006/test/test_vidputs.c 2024-10-06 21:17:54.000000000 +0000
@@ -1,5 +1,5 @@
/*****
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@@ -27,7 +27,7 @@
* authorization.
*
*****/
/*
- * $Id: test_vidputs.c,v 1.15 2022/12/10 23:23:27 tom Exp $
+ * $Id: test_vidputs.c,v 1.16 2024/10/06 21:17:54 tom Exp $

```

```

*
* Demonstrate the vidputs and vidattr functions.
* Thomas Dickey - 2013/01/12
@@ -51,7 +51,7 @@
}

static bool
-outs(const char *s)
+outs(NCURSES_CONST char *s)
{
    if (VALID_STRING(s)) {
        tputs(s, 1, outc);
Index: test/testcurs.c
Prereq: 1.58
--- ncurses-6.5-20240928+/test/testcurs.c 2023-05-28 14:23:34.000000000 +0000
+++ ncurses-6.5-20241006/test/testcurs.c 2024-10-05 19:17:19.000000000 +0000
@@ -6,7 +6,7 @@
* wrs(5/28/93) -- modified to be consistent (perform identically) with either
*
*         PDCurses or under Unix System V, R4
*
- * $Id: testcurs.c,v 1.58 2023/05/28 14:23:34 tom Exp $
+ * $Id: testcurs.c,v 1.59 2024/10/05 19:17:19 tom Exp $
*/

#include <test.priv.h>
@@ -245,7 +245,7 @@
wclrtobot(win);
if (c >= KEY_MIN)
    wprintw(win, "Key Pressed: %s", keyname(c));
- else if (isprint(c))
+ else if (isprint(UChar(c)))
    wprintw(win, "Key Pressed: %c", c);
else
    wprintw(win, "Key Pressed: %s", unctrl(UChar(c)));
@@ -748,8 +748,8 @@
 keypad(stdscr, TRUE);
 raw();
 key = getch();
- if (key < KEY_MIN && key > 0 && isalpha(key)) {
-     if (islower(key))
+ if (key < KEY_MIN && key > 0 && isalpha(UChar(key))) {
+     if (islower(UChar(key)))
        key = toupper(key);
        for (n = 0; n < MAX_OPTIONS; ++n) {
            if (key == command[n].text[0]) {
Index: test/testscanw.c
Prereq: 1.15
--- ncurses-6.5-20240928+/test/testscanw.c 2022-12-11 00:10:29.000000000 +0000

```

```

+++ ncurses-6.5-20241006/test/testscanw.c 2024-10-05 19:27:33.000000000 +0000
@@ -1,5 +1,5 @@
/*****

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@@ -30,7 +30,7 @@
* Date: 1997/03/17
* From: bayern@morpheus.cis.yale.edu
*
- * $Id: testscanw.c,v 1.15 2022/12/11 00:10:29 tom Exp $
+ * $Id: testscanw.c,v 1.16 2024/10/05 19:27:33 tom Exp $
*/
#include <test.priv.h>

@@ -85,7 +85,7 @@
    curses_trace	TRACE_UPDATE | TRACE_CALLS);
#endif
    while (optind < argc) {
- char *token = argv[optind++];
+ const char *token = argv[optind++];
    if (isdigit(UChar(*token)))
        move(atoi(token), 0);
    else if (!strcmp(token, "k+"))
Index: test/view.c
Prereq: 1.145
--- ncurses-6.5-20240928+/test/view.c 2022-12-04 00:40:11.000000000 +0000
+++ ncurses-6.5-20241006/test/view.c 2024-10-06 21:08:05.000000000 +0000
@@ -1,5 +1,5 @@
/*****

-
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@@ -52,7 +52,7 @@
* scroll operation worked, and the refresh() code only had to do a
* partial repaint.
*
- * $Id: view.c,v 1.145 2022/12/04 00:40:11 tom Exp $
+ * $Id: view.c,v 1.147 2024/10/06 21:08:05 tom Exp $
*/

#include <test.priv.h>

```

@@ -93,8 +93,7 @@

```
#if USE_WIDEC_SUPPORT
```

```
    for (;;) {
-   int count;
-   TEST_CCHAR(src, count, {
+   TEST_CCHAR(src, {
        int len = wcwidth(test_wch[0]);
        result += (len > 0) ? len : 1;
        ++src;
```

@@ -186,12 +185,10 @@

```
    */
    {
    int j;
-   int width = 1;
+   int width;
```

```
    for (j = actual = 0; j < shift; ++j) {
-   int count;
-
-
        TEST_CCHAR(s + j, count, {
+   TEST_CCHAR(s + j, {
        width = wcwidth(test_wch[0]);
        }
        , {
```

@@ -294,7 +291,7 @@

```
#if USE_WIDEC_SUPPORT
```

```
    if (!memcmp("\357\273\277", my_blob, 3)) {
-   char *s = my_blob + 3;
+   const char *s = my_blob + 3;
    char *d = my_blob;
    Trace(("trim BOM"));
    do {
```

@@ -329,7 +326,7 @@

```
    char *s;
    int y, x;
#if USE_WIDEC_SUPPORT
-   char *last = my_vec[k] + (int) strlen(my_vec[k]);
+   const char *last = my_vec[k] + (int) strlen(my_vec[k]);
    wchar_t wch[2];
    size_t rc;
#ifdef state_unused
@@ -408,7 +405,7 @@
    int
    main(int argc, char *argv[])
    {
```



```

- static const char *help[] =
+ static NCURSES_CONST char *help[] =
{
"Commands:",
" q,^Q,ESC - quit this program",
@@ -659,7 +656,7 @@
    beep();
    break;
}
- if (c >= KEY_MIN || (c > 0 && !isdigit(c))) {
+ if (c >= KEY_MIN || (c > 0 && !isdigit(UChar(c)))) {
    got_number = FALSE;
    value = 0;
}

```

Found in path(s):

* /ncurses-6-5-20241006-patch-gz/ncurses-6.5-20241006.patch

1.25 scanf 1.3.8-r1

1.25.1 Available under license :

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1.26 utmps-lib 0.1.2.3-r2

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1.28 auto-sdk 1.1.0

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package version

// Collection is a type that implements the sort.Interface interface

// so that versions can be sorted.

type Collection []*Version

```
func (v Collection) Len() int {  
    return len(v)  
}
```

```
func (v Collection) Less(i, j int) bool {  
    return v[i].LessThan(v[j])  
}
```

```
func (v Collection) Swap(i, j int) {  
    v[i], v[j] = v[j], v[i]  
}
```

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package version

```
import (  
    "reflect"  
    "sort"  
    "testing"  
)
```

```
func TestCollection(t *testing.T) {  
    versionsRaw := []string{  
        "1.1.1",  
        "1.0",  
        "1.2",  
        "2",  
        "0.7.1",  
    }  
}
```

```
versions := make([]*Version, len(versionsRaw))  
for i, raw := range versionsRaw {  
    v, err := NewVersion(raw)  
    if err != nil {  
        t.Fatalf("err: %s", err)  
    }  
}
```

```
versions[i] = v
```

```
}
```

```
sort.Sort(Collection(versions))
```

```
actual := make([]string, len(versions))
```

```
for i, v := range versions {
```

```
    actual[i] = v.String()
```

```
}
```

```
expected := []string{
```

```
    "0.7.1",
```

```
    "1.0.0",
```

```
    "1.1.1",
```

```
    "1.2.0",
```

```
    "2.0.0",
```

```
}
```

```
if !reflect.DeepEqual(actual, expected) {
```

```
    t.Fatalf("bad: %#v", actual)
```

```
}
```

```
}
```

```
name: go-tests
```

```
on: [push]
```

```
env:
```

```
    TEST_RESULTS: /tmp/test-results
```

```
jobs:
```

```
    go-tests:
```

```
        runs-on: ubuntu-latest
```

```
        strategy:
```

```
            matrix:
```

```
                go-version: [ 1.15.3, 1.19 ]
```

```
        steps:
```

```
            - name: Setup go
```

```
              uses: actions/setup-go@41dfa10bad2bb2ae585af6ee5bb4d7d973ad74ed # v5.1.0
```

```
              with:
```

```
                go-version: ${{ matrix.go-version }}
```

```
            - name: Checkout code
```

```
              uses: actions/checkout@11bd71901bbe5b1630ceea73d27597364c9af683 # v4.2.2
```

```
            - name: Create test directory
```

```
              run: |
```

```
                mkdir -p ${{ env.TEST_RESULTS }}
```

```

- name: Download go modules
  run: go mod download

- name: Cache / restore go modules
  uses: actions/cache@1bd1e32a3bdc45362d1e726936510720a7c30a57 # v4.2.0
  with:
    path: |
      ~/go/pkg/mod
    key: ${ runner.os }-go-${ hashFiles('**/go.sum') }
    restore-keys: |
      ${ runner.os }-go-

# Check go fmt output because it does not report
non-zero when there are fmt changes
- name: Run gofmt
  run: |
    go fmt ./...
    files=$(go fmt ./...)
    if [ -n "$files" ]; then
      echo "The following file(s) do not conform to go fmt:"
      echo "$files"
      exit 1
    fi

# Install gotestsum with go get for 1.15.3; otherwise default to go install
- name: Install gotestsum
  run: |
    GTS="gotest.tools/gotestsum@v1.8.2"
    # We use the same error message prefix in either failure case, so just define it once here.
    ERROR="Failed to install $GTS"
    # First try to 'go install', if that fails try 'go get'...
    go install "$GTS" || go get "$GTS" || { echo "$ERROR: both 'go install' and 'go get' failed"; exit 1; }
    # Check that the gotestsum command was actually installed in the path...
    command -v gotestsum > /dev/null 2>&1 || { echo "$ERROR: gotestsum command not installed"; exit
1; }
    echo "OK: Command 'gotestsum' installed ($GTS)"

- name: Run go tests
  run: |
    PACKAGE_NAMES=$(go list ./...)
    gotestsum --format=short-verbose --junitfile $TEST_RESULTS/gotestsum-report.xml --
$PACKAGE_NAMES

# Save coverage report parts
- name: Upload and save artifacts
  uses: actions/upload-artifact@b4b15b8c7c6ac21ea08fcf65892d2ee8f75cf882 # v4.4.3
  with:

```

name: Test Results
path: \${ env.TEST_RESULTS }
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Versioning Library for Go

![Build Status](https://github.com/hashicorp/go-version/actions/workflows/go-tests.yml/badge.svg)
[![GoDoc](https://godoc.org/github.com/hashicorp/go-version?status.svg)](https://godoc.org/github.com/hashicorp/go-version)

go-version is a library for parsing versions and version constraints, and verifying versions against a set of constraints. go-version can sort a collection of versions properly, handles prerelease/beta versions, can increment versions, etc.

Versions used with go-version must follow [SemVer](http://semver.org/).

Installation and Usage

Package documentation can be found on
[GoDoc](http://godoc.org/github.com/hashicorp/go-version).

Installation can be done with a normal `go get`:

```
...  
$ go get github.com/hashicorp/go-version  
...
```

Version Parsing and Comparison

```
```go  
v1, err := version.NewVersion("1.2")
v2, err := version.NewVersion("1.5+metadata")
```

```
// Comparison example. There is also GreaterThan, Equal, and just
// a simple Compare
// that returns an int allowing easy >=, <=, etc.
if v1.LessThan(v2) {
 fmt.Printf("%s is less than %s", v1, v2)
}
```

```

Version Constraints

```
```go
v1, err := version.NewVersion("1.2")

// Constraints example.
constraints, err := version.NewConstraint(">= 1.0, < 1.4")
if constraints.Check(v1) {
 fmt.Printf("%s satisfies constraints %s", v1, constraints)
}
```

```

Version Sorting

```
```go
versionsRaw := []string{"1.1", "0.7.1", "1.4-beta", "1.4", "2"}
versions := make([]*version.Version, len(versionsRaw))
for i, raw := range versionsRaw {
 v, _ := version.NewVersion(raw)
 versions[i] = v
}

// After this, the versions are properly sorted
sort.Sort(version.Collection(versions))
```

```

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package version

```
import (  
    "encoding/json"  
    "fmt"  
    "reflect"  
    "testing"  
)
```

```
func TestNewVersion(t *testing.T) {  
    cases := []struct {  
        version string  
        err      bool  
    }{  
        {"", true},  
        {"1.2.3", false},  
        {"1.0", false},  
        {"1", false},  
        {"1.2.beta", true},  
        {"1.21.beta", true},  
        {"foo", true},  
    }
```

```

{"1.2-5", false},
{"1.2-beta.5", false},
{"\n1.2", true},
{"1.2.0-x.Y.0+metadata", false},
{"1.2.0-x.Y.0+metadata-width-hyphen", false},
{"1.2.3-rc1-with-hyphen", false},
{"1.2.3.4", false},
{"1.2.0.4-x.Y.0+metadata", false},
{"1.2.0.4-x.Y.0+metadata-width-hyphen", false},
{"1.2.0-X-1.2.0+metadata~dist", false},
{"1.2.3.4-rc1-with-hyphen", false},
{"1.2.3.4", false},
{"v1.2.3", false},
{"foo1.2.3", true},
{"1.7rc2", false},
{"v1.7rc2", false},
{"1.0-", false},
}

```

```

for _, tc := range cases {
    _, err := NewVersion(tc.version)
    if tc.err && err == nil {
        t.Fatalf("expected error for version:
        %q", tc.version)
    } else if !tc.err && err != nil {
        t.Fatalf("error for version %q: %s", tc.version, err)
    }
}
}

```

```

func TestNewSemver(t *testing.T) {
    cases := []struct {
        version string
        err      bool
    }{
        {"", true},
        {"1.2.3", false},
        {"1.0", false},
        {"1", false},
        {"1.2.beta", true},
        {"1.21.beta", true},
        {"foo", true},
        {"1.2-5", false},
        {"1.2-beta.5", false},
        {"\n1.2", true},
        {"1.2.0-x.Y.0+metadata", false},
        {"1.2.0-x.Y.0+metadata-width-hyphen", false},
        {"1.2.3-rc1-with-hyphen", false},
    }
}

```

```

{"1.2.3.4", false},
{"1.2.0.4-x.Y.0+metadata", false},
{"1.2.0.4-x.Y.0+metadata-width-hyphen", false},
{"1.2.0-X-1.2.0+metadata~dist", false},
{"1.2.3.4-rc1-with-hyphen", false},
{"1.2.3.4", false},
{"v1.2.3", false},
{"foo1.2.3", true},
{"1.7rc2", true},
{"v1.7rc2", true},
{"1.0-", true},
}

```

```

for _, tc := range cases {
    _, err := NewSemver(tc.version)
    if tc.err && err == nil {
        t.Fatalf("expected error for version: %q", tc.version)
    } else
    if !tc.err && err != nil {
        t.Fatalf("error for version %q: %s", tc.version, err)
    }
}
}

```

```

func TestCore(t *testing.T) {
    cases := []struct {
        v1 string
        v2 string
    }{
        {"1.2.3", "1.2.3"},
        {"2.3.4-alpha1", "2.3.4"},
        {"3.4.5alpha1", "3.4.5"},
        {"1.2.3-2", "1.2.3"},
        {"4.5.6-beta1+meta", "4.5.6"},
        {"5.6.7.1.2.3", "5.6.7"},
    }
}

```

```

for _, tc := range cases {
    v1, err := NewVersion(tc.v1)
    if err != nil {
        t.Fatalf("error for version %q: %s", tc.v1, err)
    }
    v2, err := NewVersion(tc.v2)
    if err != nil {
        t.Fatalf("error for version %q: %s", tc.v2, err)
    }
}

```

```

actual := v1.Core()

```



```

expected := v2

if !reflect.DeepEqual(actual, expected) {
    t.Fatalf("expected: %s\nactual: %s", expected, actual)
}
}
}

```

```

func TestVersionCompare(t *testing.T) {
    cases := []struct {
        v1    string
        v2    string
        expected int
    }{
        {"1.2.3", "1.4.5", -1},
        {"1.2-beta", "1.2-beta", 0},
        {"1.2", "1.1.4", 1},
        {"1.2", "1.2-beta", 1},
        {"1.2+foo", "1.2+beta", 0},
        {"v1.2", "v1.2-beta",
1},
        {"v1.2+foo", "v1.2+beta", 0},
        {"v1.2.3.4", "v1.2.3.4", 0},
        {"v1.2.0.0", "v1.2", 0},
        {"v1.2.0.0.1", "v1.2", 1},
        {"v1.2", "v1.2.0.0", 0},
        {"v1.2", "v1.2.0.0.1", -1},
        {"v1.2.0.0", "v1.2.0.0.1", -1},
        {"v1.2.3.0", "v1.2.3.4", -1},
        {"1.7rc2", "1.7rc1", 1},
        {"1.7rc2", "1.7", -1},
        {"1.2.0", "1.2.0-X-1.2.0+metadata~dist", 1},
    }
}

```

```

for _, tc := range cases {
    v1, err := NewVersion(tc.v1)
    if err != nil {
        t.Fatalf("err: %s", err)
    }
}

```

```

v2, err := NewVersion(tc.v2)
if err != nil {
    t.Fatalf("err: %s", err)
}

```

```

actual := v1.Compare(v2)
expected := tc.expected
if actual != expected {

```

```

t.Fatalf(
    "%s <=> %s\nexpected: %d\nactual: %d",
    tc.v1, tc.v2,
    expected, actual)
}
}
}

func TestVersionCompare_versionAndSemver(t *testing.T) {
    cases := []struct {
        versionRaw string
        semverRaw  string
        expected   int
    }{
        {"0.0.2", "0.0.2", 0},
        {"1.0.2alpha", "1.0.2-alpha", 0},
        {"v1.2+foo", "v1.2+beta", 0},
        {"v1.2", "v1.2+meta", 0},
        {"1.2",
        "1.2-beta", 1},
        {"v1.2", "v1.2-beta", 1},
        {"1.2.3", "1.4.5", -1},
        {"v1.2", "v1.2.0.0.1", -1},
        {"v1.0.3-", "v1.0.3", -1},
    }

    for _, tc := range cases {
        ver, err := NewVersion(tc.versionRaw)
        if err != nil {
            t.Fatalf("err: %s", err)
        }

        semver, err := NewSemver(tc.semverRaw)
        if err != nil {
            t.Fatalf("err: %s", err)
        }

        actual := ver.Compare(semver)
        if actual != tc.expected {
            t.Fatalf(
                "%s <=> %s\nexpected: %d\n actual: %d",
                tc.versionRaw, tc.semverRaw, tc.expected, actual,
            )
        }
    }
}

func TestVersionEqual_nil(t *testing.T) {

```

```

mustVersion := func(v string) *Version {
    ver, err := NewVersion(v)
    if err != nil {
        t.Fatal(err)
    }
    return ver
}

cases := []struct {
    leftVersion *Version
    rightVersion *Version
    expected    bool
}{
    {mustVersion("1.0.0"), nil, false},
    {nil, mustVersion("1.0.0"), false},
    {nil, nil, true},
}

for _, tc := range cases {
    given := tc.leftVersion.Equal(tc.rightVersion)
    if given != tc.expected {
        t.Fatalf("expected
Equal to nil to be %t", tc.expected)
    }
}
}

```

```

func TestComparePreReleases(t *testing.T) {
    cases := []struct {
        v1    string
        v2    string
        expected int
    }{
        {"1.2-beta.2", "1.2-beta.2", 0},
        {"1.2-beta.1", "1.2-beta.2", -1},
        {"1.2-beta.2", "1.2-beta.11", -1},
        {"3.2-alpha.1", "3.2-alpha", 1},
        {"1.2-beta.2", "1.2-beta.1", 1},
        {"1.2-beta.11", "1.2-beta.2", 1},
        {"1.2-beta", "1.2-beta.3", -1},
        {"1.2-alpha", "1.2-beta.3", -1},
        {"1.2-beta", "1.2-alpha.3", 1},
        {"3.0-alpha.3", "3.0-rc.1", -1},
        {"3.0-alpha3", "3.0-rc1", -1},
        {"3.0-alpha.1", "3.0-alpha.beta", -1},
        {"5.4-alpha", "5.4-alpha.beta", 1},
        {"v1.2-beta.2", "v1.2-beta.2", 0},
        {"v1.2-beta.1", "v1.2-beta.2", -1},
        {"v3.2-alpha.1", "v3.2-alpha", 1},
    }
}

```

```

{"v3.2-rc.1-1-g123", "v3.2-rc.2", 1},
}

for _, tc := range cases {
    v1, err := NewVersion(tc.v1)
    if err != nil {
        t.Fatalf("err: %s", err)
    }

    v2, err := NewVersion(tc.v2)
    if err != nil {
        t.Fatalf("err: %s", err)
    }

    actual
:= v1.Compare(v2)
    expected := tc.expected
    if actual != expected {
        t.Fatalf(
            "%s <=> %s\nexpected: %d\nactual: %d",
            tc.v1, tc.v2,
            expected, actual)
    }
}

func TestVersionMetadata(t *testing.T) {
    cases := []struct {
        version string
        expected string
    }{
        {"1.2.3", ""},
        {"1.2-beta", ""},
        {"1.2.0-x.Y.0", ""},
        {"1.2.0-x.Y.0+metadata", "metadata"},
        {"1.2.0-metadata-1.2.0+metadata~dist", "metadata~dist"},
    }

    for _, tc := range cases {
        v, err := NewVersion(tc.version)
        if err != nil {
            t.Fatalf("err: %s", err)
        }

        actual := v.Metadata()
        expected := tc.expected
        if actual != expected {
            t.Fatalf("expected: %s\nactual: %s", expected, actual)
        }
    }
}

```

```

    }
    }
}

func TestVersionPrerelease(t *testing.T) {
    cases := []struct {
        version string
        expected string
    }{
        {"1.2.3", ""},
        {"1.2-beta", "beta"},
        {"1.2.0-x.Y.0", "x.Y.0"},
        {"1.2.0-7.Y.0", "7.Y.0"},
        {"1.2.0-x.Y.0+metadata", "x.Y.0"},
        {"1.2.0-metadata-1.2.0+metadata~dist", "metadata-1.2.0"},
        {"17.03.0-ce",
"ce"}, // zero-padded fields
    }

    for _, tc := range cases {
        v, err := NewVersion(tc.version)
        if err != nil {
            t.Fatalf("err: %s", err)
        }

        actual := v.Prerelease()
        expected := tc.expected
        if actual != expected {
            t.Fatalf("expected: %s\nactual: %s", expected, actual)
        }
    }
}

func TestVersionSegments(t *testing.T) {
    cases := []struct {
        version string
        expected []int
    }{
        {"1.2.3", []int{1, 2, 3}},
        {"1.2-beta", []int{1, 2, 0}},
        {"1-x.Y.0", []int{1, 0, 0}},
        {"1.2.0-x.Y.0+metadata", []int{1, 2, 0}},
        {"1.2.0-metadata-1.2.0+metadata~dist", []int{1, 2, 0}},
        {"17.03.0-ce", []int{17, 3, 0}}, // zero-padded fields
    }

    for _, tc := range cases {
        v, err := NewVersion(tc.version)

```

```

if err != nil {
    t.Fatalf("err: %s", err)
}

actual := v.Segments()
expected := tc.expected
if !reflect.DeepEqual(actual, expected) {
    t.Fatalf("expected: %#v\nactual: %#v", expected, actual)
}
}
}

func TestVersionSegments64(t *testing.T) {
    cases
    := []struct {
        version string
        expected []int64
    }{
        {"1.2.3", []int64{1, 2, 3}},
        {"1.2-beta", []int64{1, 2, 0}},
        {"1-x.Y.0", []int64{1, 0, 0}},
        {"1.2.0-x.Y.0+metadata", []int64{1, 2, 0}},
        {"1.4.9223372036854775807", []int64{1, 4, 9223372036854775807}},
    }

    for _, tc := range cases {
        v, err := NewVersion(tc.version)
        if err != nil {
            t.Fatalf("err: %s", err)
        }

        actual := v.Segments64()
        expected := tc.expected
        if !reflect.DeepEqual(actual, expected) {
            t.Fatalf("expected: %#v\nactual: %#v", expected, actual)
        }

        {
            expected := actual[0]
            actual[0]++
            actual = v.Segments64()
            if actual[0] != expected {
                t.Fatalf("Segments64 is mutable")
            }
        }
    }
}

```

```

func TestJsonMarshal(t *testing.T) {
    cases := []struct {
        version string
        err      bool
    }{
        {"1.2.3", false},
        {"1.2.0-x.Y.0+metadata", false},
        {"1.2.0-x.Y.0+metadata-width-hyphen", false},
        {"1.2.3-rc1-with-hyphen", false},
        {"1.2.3.4", false},
        {"1.2.0.4-x.Y.0+metadata", false},
        {"1.2.0.4-x.Y.0+metadata-width-hyphen",
false},
        {"1.2.0-X-1.2.0+metadata~dist", false},
        {"1.2.3.4-rc1-with-hyphen", false},
        {"1.2.3.4", false},
    }

    for _, tc := range cases {
        v, err1 := NewVersion(tc.version)
        if err1 != nil {
            t.Fatalf("error for version %q: %s", tc.version, err1)
        }

        parsed, err2 := json.Marshal(v)
        if err2 != nil {
            t.Fatalf("error marshaling version %q: %s", tc.version, err2)
        }
        result := string(parsed)
        expected := fmt.Sprintf("%q", tc.version)
        if result != expected && !tc.err {
            t.Fatalf("Error marshaling unexpected marshaled content: result=%q expected=%q", result, expected)
        }
    }
}

```

```

func TestJsonUnmarshal(t *testing.T) {
    cases := []struct {
        version string
        err      bool
    }{
        {"1.2.3", false},
        {"1.2.0-x.Y.0+metadata", false},
        {"1.2.0-x.Y.0+metadata-width-hyphen", false},
        {"1.2.3-rc1-with-hyphen", false},
        {"1.2.3.4", false},
        {"1.2.0.4-x.Y.0+metadata", false},
        {"1.2.0.4-x.Y.0+metadata-width-hyphen", false},
    }
}

```

```

{"1.2.0-X-1.2.0+metadata~dist",
false},
{"1.2.3.4-rc1-with-hyphen", false},
{"1.2.3.4", false},
}

for _, tc := range cases {
    expected, err1 := NewVersion(tc.version)
    if err1 != nil {
        t.Fatalf("err: %s", err1)
    }

    actual := &Version{}
    err2 := json.Unmarshal([]byte(fmt.Sprintf("%q", tc.version)), actual)
    if err2 != nil {
        t.Fatalf("error unmarshaling version: %s", err2)
    }
    if !reflect.DeepEqual(actual, expected) {
        t.Fatalf("error unmarshaling, unexpected object content: actual=%q expected=%q", actual, expected)
    }
}

func TestVersionString(t *testing.T) {
    cases := [][]string{
        {"1.2.3", "1.2.3"},
        {"1.2-beta", "1.2.0-beta"},
        {"1.2.0-x.Y.0", "1.2.0-x.Y.0"},
        {"1.2.0-x.Y.0+metadata", "1.2.0-x.Y.0+metadata"},
        {"1.2.0-metadata-1.2.0+metadata~dist", "1.2.0-metadata-1.2.0+metadata~dist"},
        {"17.03.0-ce", "17.3.0-ce"}, // zero-padded fields
    }

    for _, tc := range cases {
        v, err := NewVersion(tc[0])
        if err != nil {
            t.Fatalf("err: %s", err)
        }

        actual := v.String()
        expected := tc[1]
        if actual != expected {
            t.Fatalf("expected: %s\nactual: %s", expected, actual)
        }
        if actual := v.Original(); actual != tc[0] {
            t.Fatalf("expected original: %q\nactual: %q", tc[0], actual)
        }
    }
}

```



```

}
}

func TestEqual(t *testing.T) {
    cases := []struct {
        v1    string
        v2    string
        expected bool
    }{
        {"1.2.3", "1.4.5", false},
        {"1.2-beta", "1.2-beta", true},
        {"1.2", "1.1.4", false},
        {"1.2", "1.2-beta", false},
        {"1.2+foo", "1.2+beta", true},
        {"v1.2", "v1.2-beta", false},
        {"v1.2+foo", "v1.2+beta", true},
        {"v1.2.3.4", "v1.2.3.4", true},
        {"v1.2.0.0", "v1.2", true},
        {"v1.2.0.0.1", "v1.2", false},
        {"v1.2", "v1.2.0.0", true},
        {"v1.2", "v1.2.0.0.1", false},
        {"v1.2.0.0", "v1.2.0.0.1", false},
        {"v1.2.3.0", "v1.2.3.4", false},
        {"1.7rc2", "1.7rc1", false},
        {"1.7rc2", "1.7", false},
        {"1.2.0", "1.2.0-X-1.2.0+metadata~dist", false},
    }

    for _, tc := range cases {
        v1, err := NewVersion(tc.v1)
        if err != nil {
            t.Fatalf("err: %s", err)
        }

        v2, err := NewVersion(tc.v2)
        if err != nil {
            t.Fatalf("err: %s", err)
        }

        actual := v1.Equal(v2)
        expected := tc.expected
        if actual != expected {
            t.Fatalf(
                "%s <=> %s\nexpected: %t\nactual: %t",
                tc.v1, tc.v2,
                expected, actual)
        }
    }
}

```

```

}
}

func TestGreaterThan(t *testing.T) {
cases := []struct {
v1    string
v2    string
expected bool
}{
{"1.2.3", "1.4.5", false},
{"1.2-beta", "1.2-beta", false},
{"1.2", "1.1.4", true},
{"1.2", "1.2-beta", true},
{"1.2+foo", "1.2+beta", false},
{"v1.2", "v1.2-beta", true},
{"v1.2+foo", "v1.2+beta", false},
{"v1.2.3.4", "v1.2.3.4", false},
{"v1.2.0.0", "v1.2", false},
{"v1.2.0.0.1", "v1.2", true},
{"v1.2", "v1.2.0.0", false},
{"v1.2", "v1.2.0.0.1", false},
{"v1.2.0.0", "v1.2.0.0.1", false},
{"v1.2.3.0", "v1.2.3.4", false},
{"1.7rc2", "1.7rc1", true},
{"1.7rc2", "1.7", false},
{"1.2.0", "1.2.0-X-1.2.0+metadata~dist", true},
}

for _, tc := range cases {
v1,
err := NewVersion(tc.v1)
if err != nil {
t.Fatalf("err: %s", err)
}

v2, err := NewVersion(tc.v2)
if err != nil {
t.Fatalf("err: %s", err)
}

actual := v1.GreaterThan(v2)
expected := tc.expected
if actual != expected {
t.Fatalf(
"%s > %s\nexpected: %t\nactual: %t",
tc.v1, tc.v2,
expected, actual)
}
}

```

```

}
}

func TestLessThan(t *testing.T) {
cases := []struct {
    v1    string
    v2    string
    expected bool
}{
    {"1.2.3", "1.4.5", true},
    {"1.2-beta", "1.2-beta", false},
    {"1.2", "1.1.4", false},
    {"1.2", "1.2-beta", false},
    {"1.2+foo", "1.2+beta", false},
    {"v1.2", "v1.2-beta", false},
    {"v1.2+foo", "v1.2+beta", false},
    {"v1.2.3.4", "v1.2.3.4", false},
    {"v1.2.0.0", "v1.2", false},
    {"v1.2.0.0.1", "v1.2", false},
    {"v1.2", "v1.2.0.0", false},
    {"v1.2", "v1.2.0.0.1", true},
    {"v1.2.0.0", "v1.2.0.0.1", true},
    {"v1.2.3.0", "v1.2.3.4", true},
    {"1.7rc2", "1.7rc1", false},
    {"1.7rc2", "1.7", true},
    {"1.2.0", "1.2.0-X-1.2.0+metadata~dist",
false},
}

for _, tc := range cases {
    v1, err := NewVersion(tc.v1)
    if err != nil {
        t.Fatalf("err: %s", err)
    }

    v2, err := NewVersion(tc.v2)
    if err != nil {
        t.Fatalf("err: %s", err)
    }

    actual := v1.LessThan(v2)
    expected := tc.expected
    if actual != expected {
        t.Fatalf(
            "%s < %s\nexpected: %t\nactual: %t",
            tc.v1, tc.v2,
            expected, actual)
    }
}

```

```

}
}

func TestGreaterThanOrEqual(t *testing.T) {
    cases := []struct {
        v1    string
        v2    string
        expected bool
    }{
        {"1.2.3", "1.4.5", false},
        {"1.2-beta", "1.2-beta", true},
        {"1.2", "1.1.4", true},
        {"1.2", "1.2-beta", true},
        {"1.2+foo", "1.2+beta", true},
        {"v1.2", "v1.2-beta", true},
        {"v1.2+foo", "v1.2+beta", true},
        {"v1.2.3.4", "v1.2.3.4", true},
        {"v1.2.0.0", "v1.2", true},
        {"v1.2.0.0.1", "v1.2", true},
        {"v1.2", "v1.2.0.0", true},
        {"v1.2", "v1.2.0.0.1", false},
        {"v1.2.0.0", "v1.2.0.0.1", false},
        {"v1.2.3.0", "v1.2.3.4", false},
        {"1.7rc2", "1.7rc1", true},
        {"1.7rc2",
"1.7", false},
        {"1.2.0", "1.2.0-X-1.2.0+metadata~dist", true},
    }

    for _, tc := range cases {
        v1, err := NewVersion(tc.v1)
        if err != nil {
            t.Fatalf("err: %s", err)
        }

        v2, err := NewVersion(tc.v2)
        if err != nil {
            t.Fatalf("err: %s", err)
        }

        actual := v1.GreaterThanOrEqual(v2)
        expected := tc.expected
        if actual != expected {
            t.Fatalf(
                "%s >= %s\nexpected: %t\nactual: %t",
                tc.v1, tc.v2,
                expected, actual)
        }
    }
}

```

```

}
}

func TestLessThanOrEqual(t *testing.T) {
    cases := []struct {
        v1    string
        v2    string
        expected bool
    }{
        {"1.2.3", "1.4.5", true},
        {"1.2-beta", "1.2-beta", true},
        {"1.2", "1.1.4", false},
        {"1.2", "1.2-beta", false},
        {"1.2+foo", "1.2+beta", true},
        {"v1.2", "v1.2-beta", false},
        {"v1.2+foo", "v1.2+beta", true},
        {"v1.2.3.4", "v1.2.3.4", true},
        {"v1.2.0.0", "v1.2", true},
        {"v1.2.0.0.1", "v1.2", false},
        {"v1.2", "v1.2.0.0", true},
        {"v1.2", "v1.2.0.0.1", true},
        {"v1.2.0.0", "v1.2.0.0.1", true},
        {"v1.2.3.0",
"v1.2.3.4", true},
        {"1.7rc2", "1.7rc1", false},
        {"1.7rc2", "1.7", true},
        {"1.2.0", "1.2.0-X-1.2.0+metadata~dist", false},
    }

    for _, tc := range cases {
        v1, err := NewVersion(tc.v1)
        if err != nil {
            t.Fatalf("err: %s", err)
        }

        v2, err := NewVersion(tc.v2)
        if err != nil {
            t.Fatalf("err: %s", err)
        }

        actual := v1.LessThanOrEqual(v2)
        expected := tc.expected
        if actual != expected {
            t.Fatalf(
                "%s <= %s\nexpected: %t\nactual: %t",
                tc.v1, tc.v2,
                expected, actual)
        }
    }
}

```

```
}  
}
```

Data model artifacts for Prometheus.

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1.7.0 (May 24, 2024)

ENHANCEMENTS:

- Remove `reflect` dependency ([#91](https://github.com/hashicorp/go-version/pull/91))
- Implement the `database/sql.Scanner` and `database/sql/driver.Value` interfaces for `Version` ([#133](https://github.com/hashicorp/go-version/pull/133))

INTERNAL:

- [COMPLIANCE] Add Copyright and License Headers ([#115](https://github.com/hashicorp/go-version/pull/115))
- [COMPLIANCE] Update MPL-2.0 LICENSE ([#105](https://github.com/hashicorp/go-version/pull/105))
- Bump actions/cache from 3.0.11 to 3.2.5 ([#116](https://github.com/hashicorp/go-version/pull/116))
- Bump actions/checkout from 3.2.0 to 3.3.0 ([#111](https://github.com/hashicorp/go-version/pull/111))
- Bump actions/upload-artifact from 3.1.1 to 3.1.2 ([#112](https://github.com/hashicorp/go-version/pull/112))
- GHA Migration ([#103](https://github.com/hashicorp/go-version/pull/103))
- github: Pin external GitHub Actions to hashes ([#107](https://github.com/hashicorp/go-version/pull/107))
- SEC-090:
Automated trusted workflow pinning (2023-04-05) ([#124](https://github.com/hashicorp/go-version/pull/124))
- update readme ([#104](https://github.com/hashicorp/go-version/pull/104))

1.6.0 (June 28, 2022)

FEATURES:

- Add `Prerelease` function to `Constraint` to return true if the version includes a prerelease field ([#100](https://github.com/hashicorp/go-version/pull/100))

1.5.0 (May 18, 2022)

FEATURES:

- Use `encoding` `TextMarshaler` & `TextUnmarshaler` instead of JSON equivalents ([#95](https://github.com/hashicorp/go-version/pull/95))
- Add JSON handlers to allow parsing from/to JSON ([#93](https://github.com/hashicorp/go-version/pull/93))

1.4.0 (January 5, 2022)

FEATURES:

- Introduce `MustConstraints()` ([#87](https://github.com/hashicorp/go-version/pull/87))
- `Constraints`: Introduce `Equals()` and `sort.Interface` methods ([#88](https://github.com/hashicorp/go-version/pull/88))

1.3.0 (March 31, 2021)

Please note that CHANGELOG.md does not exist in the source code prior to this release.

FEATURES:

- Add `Core` function to return a version without prerelease or metadata ([#85](https://github.com/hashicorp/go-version/pull/85))

1.2.1 (June 17, 2020)

BUG FIXES:

- Prevent `Version.Equal` method from panicking on `nil` encounter ([#73](https://github.com/hashicorp/go-version/pull/73))

1.2.0 (April 23, 2019)

FEATURES:

- Add `GreaterThanOrEqual` and `LessThanOrEqual` helper methods ([#53](https://github.com/hashicorp/go-version/pull/53))

1.1.0 (Jan 07, 2019)

FEATURES:

- Add `NewSemver` constructor ([#45](https://github.com/hashicorp/go-version/pull/45))

1.0.0 (August 24, 2018)

Initial release.

procfs provides functions to retrieve system, kernel and process metrics from the pseudo-filesystem `proc`.

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package version

```
import (  
    "fmt"  
    "regexp"  
    "sort"  
    "strings"  
)
```

// Constraint represents a single constraint for a version, such as

// ">= 1.0".

```

type Constraint struct {
    f      constraintFunc
    op     operator
    check  *Version
    original string
}

func (c *Constraint) Equals(con *Constraint) bool {
    return c.op == con.op && c.check.Equal(con.check)
}

// Constraints is a slice of constraints. We make a custom type so that
// we can add methods to it.
type Constraints []*Constraint

type constraintFunc func(v, c *Version) bool

var constraintOperators map[string]constraintOperation

type constraintOperation struct {
    op operator
    f constraintFunc
}

var constraintRegexp *regexp.Regexp

func init() {
    constraintOperators = map[string]constraintOperation{
        "": {op: equal, f: constraintEqual},
        "=": {op: equal, f: constraintEqual},
        "!=": {op: notEqual, f: constraintNotEqual},
        ">": {op: greaterThan, f: constraintGreaterThan},
        "<": {op: lessThan, f: constraintLessThan},
        ">=": {op: greaterThanEqual, f: constraintGreaterThanOrEqual},
        "<=": {op: lessThanEqual, f: constraintLessThanOrEqual},
        "~>": {op: pessimistic, f: constraintPessimistic},
    }

    ops := make([]string, 0, len(constraintOperators))
    for k := range constraintOperators {
        ops = append(ops, regexp.QuoteMeta(k))
    }

    constraintRegexp = regexp.MustCompile(fmt.Sprintf(
        `^\s*(%s)\s*(%s)\s*$`,
        strings.Join(ops, "|"),
        VersionRegexpRaw))
}

```

```

}

// NewConstraint will parse one or more constraints from the given
// constraint string. The string must be a comma-separated list of
// constraints.
func NewConstraint(v string) (Constraints, error) {
    vs := strings.Split(v, ",")
    result := make([]*Constraint, len(vs))
    for i, single := range vs {
        c, err := parseSingle(single)
        if err != nil {
            return nil, err
        }

        result[i] = c
    }

    return Constraints(result), nil
}

// MustConstraints is a helper that wraps a call to a function
//
// returning (Constraints, error) and panics if error is non-nil.
func MustConstraints(c Constraints, err error) Constraints {
    if err != nil {
        panic(err)
    }

    return c
}

// Check tests if a version satisfies all the constraints.
func (cs Constraints) Check(v *Version) bool {
    for _, c := range cs {
        if !c.Check(v) {
            return false
        }
    }

    return true
}

// Equals compares Constraints with other Constraints
// for equality. This may not represent logical equivalence
// of compared constraints.
// e.g. even though '>0.1,>0.2' is logically equivalent
// to '>0.2' it is *NOT* treated as equal.
//

```



```

// Missing operator is treated as equal to '=', whitespaces
// are ignored and constraints are sorted before comaparison.
func (cs Constraints) Equals(c Constraints) bool {
    if len(cs) != len(c) {
        return false
    }

    // make copies to retain order of the original slices
    left := make(Constraints, len(cs))
    copy(left, cs)
    sort.Stable(left)
    right := make(Constraints, len(c))
    copy(right, c)
    sort.Stable(right)

    //
    compare sorted slices
    for i, con := range left {
        if !con.Equals(right[i]) {
            return false
        }
    }

    return true
}

func (cs Constraints) Len() int {
    return len(cs)
}

func (cs Constraints) Less(i, j int) bool {
    if cs[i].op < cs[j].op {
        return true
    }
    if cs[i].op > cs[j].op {
        return false
    }

    return cs[i].check.LessThan(cs[j].check)
}

func (cs Constraints) Swap(i, j int) {
    cs[i], cs[j] = cs[j], cs[i]
}

// Returns the string format of the constraints
func (cs Constraints) String() string {
    csStr := make([]string, len(cs))

```

```

for i, c := range cs {
    csStr[i] = c.String()
}

return strings.Join(csStr, ",")
}

// Check tests if a constraint is validated by the given version.
func (c *Constraint) Check(v *Version) bool {
    return c.f(v, c.check)
}

// Prerelease returns true if the version underlying this constraint
// contains a prerelease field.
func (c *Constraint) Prerelease() bool {
    return len(c.check.Prerelease()) > 0
}

func (c *Constraint) String()
string {
    return c.original
}

func parseSingle(v string) (*Constraint, error) {
    matches := constraintRegexp.FindStringSubmatch(v)
    if matches == nil {
        return nil, fmt.Errorf("Malformed constraint: %s", v)
    }

    check, err := NewVersion(matches[2])
    if err != nil {
        return nil, err
    }

    cop := constraintOperators[matches[1]]

    return &Constraint{
        f:    cop.f,
        op:   cop.op,
        check: check,
        original: v,
    }, nil
}

func prereleaseCheck(v, c *Version) bool {
    switch vPre, cPre := v.Prerelease() != "", c.Prerelease() != ""; {
    case cPre && vPre:
        // A constraint with a pre-release can only match a pre-release version

```

```

// with the same base segments.
return v.equalSegments(c)

case !cPre && vPre:
// A constraint without a pre-release can only match a version without a
// pre-release.
return false

case cPre && !vPre:
// OK, except with the pessimistic operator
case !cPre && !vPre:
// OK
}
return true
}

//-----
//
Constraint functions
//-----

type operator rune

const (
    equal      operator = '='
    notEqual   operator = "
    greaterThan operator = '>'
    lessThan   operator = '<'
    greaterThanEqual operator = "
    lessThanEqual operator = "
    pessimistic operator = '~'
)

func constraintEqual(v, c *Version) bool {
    return v.Equal(c)
}

func constraintNotEqual(v, c *Version) bool {
    return !v.Equal(c)
}

func constraintGreaterThan(v, c *Version) bool {
    return prereleaseCheck(v, c) && v.Compare(c) == 1
}

func constraintLessThan(v, c *Version) bool {
    return prereleaseCheck(v, c) && v.Compare(c) == -1
}

```

```

func constraintGreaterThanEqual(v, c *Version) bool {
    return prereleaseCheck(v, c) && v.Compare(c) >= 0
}

func constraintLessThanEqual(v, c *Version) bool {
    return prereleaseCheck(v, c) && v.Compare(c) <= 0
}

func constraintPessimistic(v, c *Version) bool {
    // Using a pessimistic
    // constraint with a pre-release, restricts versions to pre-releases
    if !prereleaseCheck(v, c) || (c.Prerelease() != "" && v.Prerelease() == "") {
        return false
    }

    // If the version being checked is naturally less than the constraint, then there
    // is no way for the version to be valid against the constraint
    if v.LessThan(c) {
        return false
    }

    // We'll use this more than once, so grab the length now so it's a little cleaner
    // to write the later checks
    cs := len(c.segments)

    // If the version being checked has less specificity than the constraint, then there
    // is no way for the version to be valid against the constraint
    if cs > len(v.segments) {
        return false
    }

    // Check the segments in the constraint against those in the version. If the version
    // being checked, at any point, does not have the same values in each index of the
    // constraints segments, then it cannot be valid against the constraint.
    for i := 0; i < cs-1; i++ {
        if v.segments[i] != c.segments[i]
        {
            return false
        }
    }

    // Check the last part of the segment in the constraint. If the version segment at
    // this index is less than the constraints segment at this index, then it cannot
    // be valid against the constraint
    if c.segments[cs-1] > v.segments[cs-1] {
        return false
    }
}

```

```
// If nothing has rejected the version by now, it's valid
return true
}
version: 2
updates:
- package-ecosystem: "gomod"
  directory: "/"
  schedule:
    interval: "daily"
  labels: ["dependencies"]

- package-ecosystem: github-actions
  directory: /
  schedule:
    interval: monthly
  labels:
    - dependencies
  # only update HashiCorp actions, external actions managed by TSCCR
  allow:
    - dependency-name: hashicorp/*
  groups:
    github-actions-breaking:
      update-types:
        - major
    github-actions-backward-compatible:
      update-types:
        - minor
        - patch
```

Common libraries shared by Prometheus Go components.

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module github.com/hashicorp/go-version

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package version

```
import (  
    "fmt"  
    "reflect"  
    "sort"  
    "testing"  
)  
  
func TestNewConstraint(t *testing.T) {  
    cases := []struct {  
        input string  
        count int  
        err bool
```

```

}{
    {">= 1.2", 1, false},
    {"1.0", 1, false},
    {">= 1.x", 0, true},
    {">= 1.2, < 1.0", 2, false},

    // Out of bounds
    {"1138777878078144567552950000000000000000", 0, true},
}

```

```

for _, tc := range cases {
    v, err := NewConstraint(tc.input)
    if tc.err && err == nil {
        t.Fatalf("expected error for input: %s", tc.input)
    } else if !tc.err && err != nil {
        t.Fatalf("error for input %s: %s", tc.input, err)
    }

    if len(v) != tc.count {
        t.Fatalf("input: %s\nexpected len: %d\nactual: %d",
            tc.input, tc.count, len(v))
    }
}
}

```

```

func TestConstraintCheck(t *testing.T) {
    cases := []struct {
        constraint string
        version    string
        check      bool
    }{
        {">= 1.0, < 1.2", "1.1.5", true},
        {"< 1.0, < 1.2", "1.1.5", false},
        {"= 1.0", "1.1.5",
false},
        {"= 1.0", "1.0.0", true},
        {"1.0", "1.0.0", true},
        {"~> 1.0", "2.0", false},
        {"~> 1.0", "1.1", true},
        {"~> 1.0", "1.2.3", true},
        {"~> 1.0.0", "1.2.3", false},
        {"~> 1.0.0", "1.0.7", true},
        {"~> 1.0.0", "1.1.0", false},
        {"~> 1.0.7", "1.0.4", false},
        {"~> 1.0.7", "1.0.7", true},
        {"~> 1.0.7", "1.0.8", true},
        {"~> 1.0.7", "1.0.7.5", true},
        {"~> 1.0.7", "1.0.6.99", false},
    }
}

```

```

{"~> 1.0.7", "1.0.8.0", true},
{"~> 1.0.9.5", "1.0.9.5", true},
{"~> 1.0.9.5", "1.0.9.4", false},
{"~> 1.0.9.5", "1.0.9.6", true},
{"~> 1.0.9.5", "1.0.9.5.0", true},
{"~> 1.0.9.5", "1.0.9.5.1", true},
{"~> 2.0", "2.1.0-beta", false},
{"~> 2.1.0-a", "2.2.0", false},
{"~> 2.1.0-a", "2.1.0", false},
{"~> 2.1.0-a", "2.1.0-beta", true},
{"~> 2.1.0-a", "2.2.0-alpha", false},
{"> 2.0", "2.1.0-beta", false},
{">= 2.1.0-a", "2.1.0-beta", true},
{">= 2.1.0-a", "2.1.1-beta", false},
{">= 2.0.0", "2.1.0-beta", false},
{">= 2.1.0-a", "2.1.1", true},
{">= 2.1.0-a", "2.1.1-beta",
false},
{">= 2.1.0-a", "2.1.0", true},
{"<= 2.1.0-a", "2.0.0", true},
}

```

```

for _, tc := range cases {
    c, err := NewConstraint(tc.constraint)
    if err != nil {
        t.Fatalf("err: %s", err)
    }
}

```

```

v, err := NewVersion(tc.version)
if err != nil {
    t.Fatalf("err: %s", err)
}

```

```

actual := c.Check(v)
expected := tc.check
if actual != expected {
    t.Fatalf("Version: %s\nConstraint: %s\nExpected: %#v",
        tc.version, tc.constraint, expected)
}
}
}

```

```

func TestConstraintPrerelease(t *testing.T) {
    cases := []struct {
        constraint string
        prerelease bool
    }{
        {"= 1.0", false},
    }
}

```

```

{"= 1.0-beta", true},
{"~> 2.1.0", false},
{"~> 2.1.0-dev", true},
{"> 2.0", false},
{">= 2.1.0-a", true},
}

for _, tc := range cases {
c, err := parseSingle(tc.constraint)
if err != nil {
t.Fatalf("err: %s", err)
}

actual := c.Prerelease()
expected := tc.prerelease
if actual != expected {
t.Fatalf("Constraint: %s\nExpected: %#v",
tc.constraint, expected)
}
}
}

```

```

func
TestConstraintEqual(t *testing.T) {
cases := []struct {
leftConstraint string
rightConstraint string
expectedEqual bool
}{
{
"0.0.1",
"0.0.1",
true,
},
{ // whitespaces
" 0.0.1 ",
"0.0.1",
true,
},
{ // equal op implied
"=0.0.1 ",
"0.0.1",
true,
},
{ // version difference
"=0.0.1",
"=0.0.2",
false,
}
}

```



```

    },
    { // operator difference
        ">0.0.1",
        "=0.0.1",
        false,
    },
    { // different order
        ">0.1.0, <=1.0.0",
        "<=1.0.0, >0.1.0",
        true,
    },
}

for _, tc := range cases {
    leftCon, err := NewConstraint(tc.leftConstraint)
    if err != nil {
        t.Fatalf("err: %s", err)
    }
    rightCon, err := NewConstraint(tc.rightConstraint)
    if err != nil {
        t.Fatalf("err: %s", err)
    }

    actual := leftCon.Equals(rightCon)
    if actual != tc.expectedEqual {
        t.Fatalf("Constraints: %s vs %s\nExpected: %t\nActual: %t",
            tc.leftConstraint, tc.rightConstraint, tc.expectedEqual, actual)
    }
}
}

```

```

func TestConstraint_sort(t
*testing.T) {
    cases := []struct {
        constraint      string
        expectedConstraints string
    }{
        {
            ">= 0.1.0,< 1.12",
            "< 1.12,>= 0.1.0",
        },
        {
            "< 1.12,>= 0.1.0",
            "< 1.12,>= 0.1.0",
        },
        {
            "< 1.12,>= 0.1.0,0.2.0",
            "< 1.12,0.2.0,>= 0.1.0",
        },
    }
}

```

```

    },
    {
        ">1.0,>0.1.0,>0.3.0,>0.2.0",
        ">0.1.0,>0.2.0,>0.3.0,>1.0",
    },
}

for i, tc := range cases {
    t.Run(fmt.Sprintf("%d", i), func(t *testing.T) {
        c, err := NewConstraint(tc.constraint)
        if err != nil {
            t.Fatalf("err: %s", err)
        }

        sort.Sort(c)

        actual := c.String()

        if !reflect.DeepEqual(actual, tc.expectedConstraints) {
            t.Fatalf("unexpected order\nexpected: %#v\nactual: %#v",
                tc.expectedConstraints, actual)
        }
    })
}

func TestConstraintsString(t *testing.T) {
    cases := []struct {
        constraint string
        result      string
    }{
        {">= 1.0, < 1.2", ""},
        {"~> 1.0.7", ""},
    }

    for _, tc := range cases {
        c, err := NewConstraint(tc.constraint)
        if err != nil {
            t.Fatalf("err: %s", err)
        }

        actual := c.String()
        expected := tc.result
        if expected == "" {
            expected = tc.constraint
        }
    }
}

```

```
if actual != expected {  
    t.Fatalf("Constraint: %s\nExpected: %#v\nActual: %s",  
        tc.constraint, expected, actual)  
}  
}  
}
```

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Protocol Buffers for Go with Gadgets

Go support for Protocol Buffers - Google's data interchange format

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package version

```
import (  
    "bytes"  
    "database/sql/driver"  
    "fmt"  
    "regexp"  
    "strconv"  
    "strings"  
)
```

```

// The compiled regular expression used to test the validity of a version.
var (
    versionRegex *regexp.Regexp
    semverRegex *regexp.Regexp
)

// The raw regular expression string used for testing the validity
// of a version.
const (
    VersionRegexRaw string = `v?([0-9]+(\.[0-9]+)*?)` +
        `(-([0-9]+[0-9A-Za-z\-\~]*\.[0-9A-Za-z\-\~]+)*)(-?([A-Za-z\-\~]+[0-9A-Za-z\-\~]*\.[0-9A-Za-z\-\~]+)*)))?` +
        `(\+([0-9A-Za-z\-\~]+(\.[0-9A-Za-z\-\~]+)*)))?` +
        `?`

    // SemverRegexRaw requires a separator between version and prerelease
    SemverRegexRaw string = `v?([0-9]+(\.[0-9]+)*?)` +
        `(-([0-9]+[0-9A-Za-z\-\~]*\.[0-9A-Za-z\-\~]+)*)(-([A-Za-z\-\~]+[0-9A-Za-z\-\~]*\.[0-9A-Za-z\-\~]+)*)))?` +
        `(\+([0-9A-Za-z\-\~]+(\.[0-9A-Za-z\-\~]+)*)))?` +
        `?`
)

// Version represents a single version.
type Version struct {
    metadata string
    pre
    string
    segments []int64
    si      int
    original string
}

func init() {
    versionRegex = regexp.MustCompile("^" + VersionRegexRaw + "$")
    semverRegex = regexp.MustCompile("^" + SemverRegexRaw + "$")
}

// NewVersion parses the given version and returns a new
// Version.
func NewVersion(v string) (*Version, error) {
    return newVersion(v, versionRegex)
}

// NewSemver parses the given version and returns a new
// Version that adheres strictly to SemVer specs
// https://semver.org/
func NewSemver(v string) (*Version, error) {
    return newVersion(v, semverRegex)
}

```

```

}

func newVersion(v string, pattern *regexp.Regexp) (*Version, error) {
    matches := pattern.FindStringSubmatch(v)
    if matches == nil {
        return nil, fmt.Errorf("Malformed version: %s", v)
    }
    segmentsStr := strings.Split(matches[1], ".")
    segments := make([]int64, len(segmentsStr))
    for i, str := range segmentsStr {
        val, err := strconv.ParseInt(str, 10, 64)
        if err != nil {
            return nil, fmt.Errorf(
                "Error parsing version:
%s", err)
        }

        segments[i] = val
    }

    // Even though we could support more than three segments, if we
    // got less than three, pad it with 0s. This is to cover the basic
    // default usecase of semver, which is MAJOR.MINOR.PATCH at the minimum
    for i := len(segments); i < 3; i++ {
        segments = append(segments, 0)
    }

    pre := matches[7]
    if pre == "" {
        pre = matches[4]
    }

    return &Version{
        metadata: matches[10],
        pre:      pre,
        segments: segments,
        si:       len(segmentsStr),
        original: v,
    }, nil
}

// Must is a helper that wraps a call to a function returning (*Version, error)
// and panics if error is non-nil.
func Must(v *Version, err error) *Version {
    if err != nil {
        panic(err)
    }
}

```

```

return v
}

// Compare compares this version to another version. This
// returns -1, 0, or 1 if this version is smaller, equal,
// or larger than the other version, respectively.
//
// If you want boolean results, use the LessThan, Equal,
// GreaterThan, GreaterThanOrEqualTo or LessThanOrEqualTo
// methods.
func (v *Version) Compare(other *Version) int {
    // A quick, efficient equality check
    if v.String() == other.String() {
        return 0
    }

    // If the segments are the same, we must compare on prerelease info
    if v.equalSegments(other) {
        preSelf := v.Prerelease()
        preOther := other.Prerelease()
        if preSelf == "" && preOther == "" {
            return 0
        }
        if preSelf == "" {
            return 1
        }
        if preOther == "" {
            return -1
        }
    }

    return comparePrereleases(preSelf, preOther)
}

segmentsSelf := v.Segments64()
segmentsOther := other.Segments64()
// Get the highest specificity (hS), or if they're equal, just use segmentSelf length
lenSelf := len(segmentsSelf)
lenOther := len(segmentsOther)
hS := lenSelf
if lenSelf < lenOther {
    hS = lenOther
}
// Compare the segments
// Because a constraint could have more/less specificity than the version it's
// checking, we need to account for a lopsided or jagged comparison
for i := 0; i < hS; i++ {
    if i > lenSelf-1 {
        //

```

This means Self had the lower specificity

```
// Check to see if the remaining segments in Other are all zeros
if !allZero(segmentsOther[i:]) {
    // if not, it means that Other has to be greater than Self
    return -1
}
break
} else if i > lenOther-1 {
    // this means Other had the lower specificity
    // Check to see if the remaining segments in Self are all zeros -
    if !allZero(segmentsSelf[i:]) {
        // if not, it means that Self has to be greater than Other
        return 1
    }
    break
}
lhs := segmentsSelf[i]
rhs := segmentsOther[i]
if lhs == rhs {
    continue
} else if lhs < rhs {
    return -1
}
// Otherwise, rhs was > lhs, they're not equal
return 1
}

// if we got this far, they're equal
return 0
}
```

```
func (v *Version) equalSegments(other *Version) bool {
    segmentsSelf := v.Segments64()
    segmentsOther := other.Segments64()
```

```
    if len(segmentsSelf) != len(segmentsOther) {
        return false
    }
    for i, v := range segmentsSelf {
        if v != segmentsOther[i]
        {
            return false
        }
    }
    return true
}
```

```
func allZero(segs []int64) bool {
```

```

for _, s := range segs {
    if s != 0 {
        return false
    }
}
return true
}

func comparePart(preSelf string, preOther string) int {
    if preSelf == preOther {
        return 0
    }

    var selfInt int64
    selfNumeric := true
    selfInt, err := strconv.ParseInt(preSelf, 10, 64)
    if err != nil {
        selfNumeric = false
    }

    var otherInt int64
    otherNumeric := true
    otherInt, err = strconv.ParseInt(preOther, 10, 64)
    if err != nil {
        otherNumeric = false
    }

    // if a part is empty, we use the other to decide
    if preSelf == "" {
        if otherNumeric {
            return -1
        }
        return 1
    }

    if preOther == "" {
        if selfNumeric {
            return 1
        }
        return -1
    }

    if selfNumeric && !otherNumeric {
        return -1
    } else if !selfNumeric && otherNumeric {
        return 1
    } else if !selfNumeric && !otherNumeric && preSelf > preOther {
        return 1
    }
}

```

```

    } else if selfInt > otherInt {
        return 1
    }

    return -1
}

func comparePrereleases(v string, other string)
int {
    // the same pre release!
    if v == other {
        return 0
    }

    // split both pre releases for analyse their parts
    selfPreReleaseMeta := strings.Split(v, ".")
    otherPreReleaseMeta := strings.Split(other, ".")

    selfPreReleaseLen := len(selfPreReleaseMeta)
    otherPreReleaseLen := len(otherPreReleaseMeta)

    biggestLen := otherPreReleaseLen
    if selfPreReleaseLen > otherPreReleaseLen {
        biggestLen = selfPreReleaseLen
    }

    // loop for parts to find the first difference
    for i := 0; i < biggestLen; i = i + 1 {
        partSelfPre := ""
        if i < selfPreReleaseLen {
            partSelfPre = selfPreReleaseMeta[i]
        }

        partOtherPre := ""
        if i < otherPreReleaseLen {
            partOtherPre = otherPreReleaseMeta[i]
        }

        compare := comparePart(partSelfPre, partOtherPre)
        // if parts are equals, continue the loop
        if compare != 0 {
            return compare
        }
    }

    return 0
}

```

```

// Core returns a new version constructed from only the MAJOR.MINOR.PATCH
// segments of the version, without prerelease or metadata.
func
(v *Version) Core() *Version {
    segments := v.Segments64()
    segmentsOnly := fmt.Sprintf("%d.%d.%d", segments[0], segments[1], segments[2])
    return Must(NewVersion(segmentsOnly))
}

// Equal tests if two versions are equal.
func (v *Version) Equal(o *Version) bool {
    if v == nil || o == nil {
        return v == o
    }

    return v.Compare(o) == 0
}

// GreaterThan tests if this version is greater than another version.
func (v *Version) GreaterThan(o *Version) bool {
    return v.Compare(o) > 0
}

// GreaterThanOrEqual tests if this version is greater than or equal to another version.
func (v *Version) GreaterThanOrEqual(o *Version) bool {
    return v.Compare(o) >= 0
}

// LessThan tests if this version is less than another version.
func (v *Version) LessThan(o *Version) bool {
    return v.Compare(o) < 0
}

// LessThanOrEqual tests if this version is less than or equal to another version.
func (v *Version) LessThanOrEqual(o *Version) bool {
    return v.Compare(o) <= 0
}

// Metadata returns any metadata
// that was part of the version
// string.
//
// Metadata is anything that comes after the "+" in the version.
// For example, with "1.2.3+beta", the metadata is "beta".
func (v *Version) Metadata() string {
    return v.metadata
}

```



```

// Prerelease returns any prerelease data that is part of the version,
// or blank if there is no prerelease data.
//
// Prerelease information is anything that comes after the "-" in the
// version (but before any metadata). For example, with "1.2.3-beta",
// the prerelease information is "beta".
func (v *Version) Prerelease() string {
    return v.pre
}

// Segments returns the numeric segments of the version as a slice of ints.
//
// This excludes any metadata or pre-release information. For example,
// for a version "1.2.3-beta", segments will return a slice of
// 1, 2, 3.
func (v *Version) Segments() []int {
    segmentSlice := make([]int, len(v.segments))
    for i, v := range v.segments {
        segmentSlice[i] = int(v)
    }
    return segmentSlice
}

// Segments64 returns the
// numeric segments of the version as a slice of int64s.
//
// This excludes any metadata or pre-release information. For example,
// for a version "1.2.3-beta", segments will return a slice of
// 1, 2, 3.
func (v *Version) Segments64() []int64 {
    result := make([]int64, len(v.segments))
    copy(result, v.segments)
    return result
}

// String returns the full version string included pre-release
// and metadata information.
//
// This value is rebuilt according to the parsed segments and other
// information. Therefore, ambiguities in the version string such as
// prefixed zeroes (1.04.0 => 1.4.0), `v` prefix (v1.0.0 => 1.0.0), and
// missing parts (1.0 => 1.0.0) will be made into a canonicalized form
// as shown in the parenthesized examples.
func (v *Version) String() string {
    var buf bytes.Buffer
    fmtParts := make([]string, len(v.segments))
    for i, s := range v.segments {
        // We can ignore err here since we've pre-parsed the values in segments

```

```

    str := strconv.FormatInt(s, 10)
    fmtParts[i]
    = str
    }
    fmt.Fprintf(&buf, strings.Join(fmtParts, "."))
    if v.pre != "" {
        fmt.Fprintf(&buf, "-%s", v.pre)
    }
    if v.metadata != "" {
        fmt.Fprintf(&buf, "+%s", v.metadata)
    }

    return buf.String()
}

// Original returns the original parsed version as-is, including any
// potential whitespace, `v` prefix, etc.
func (v *Version) Original() string {
    return v.original
}

// UnmarshalText implements encoding.TextUnmarshaler interface.
func (v *Version) UnmarshalText(b []byte) error {
    temp, err := NewVersion(string(b))
    if err != nil {
        return err
    }

    *v = *temp

    return nil
}

// MarshalText implements encoding.TextMarshaler interface.
func (v *Version) MarshalText() ([]byte, error) {
    return []byte(v.String()), nil
}

// Scan implements the sql.Scanner interface.
func (v *Version) Scan(src interface{}) error {
    switch src := src.(type) {
    case string:
        return v.UnmarshalText([]byte(src))
    case nil:
        return nil
    default:
        return fmt.Errorf("cannot scan %T as Version", src)
    }
}

```

```

}

//
Value implements the driver.Valuer interface.
func (v *Version) Value() (driver.Value, error) {
    return v.String(), nil
}
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```

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1.36 go-elasticsearch 7.17.10

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//
// Code generated from specification version 7.17.10: DO NOT EDIT

package esapi

import (
    "context"
    "io"
    "net/http"
    "strconv"
    "strings"
)

func newLicensePostFunc(t Transport) LicensePost {
    return func(o
...func(*LicensePostRequest)) (*Response, error) {
    var r = LicensePostRequest{}
    for _, f := range o {
        f(&r)
    }
    return r.Do(r.ctx, t)
}
}

// ----- API Definition -----

// LicensePost - Updates the license for the cluster.
//
// See full documentation at https://www.elastic.co/guide/en/elasticsearch/reference/master/update-license.html.
type LicensePost func(o ...func(*LicensePostRequest)) (*Response, error)

// LicensePostRequest configures the License Post API request.
type LicensePostRequest struct {
    Body io.Reader

    Acknowledge *bool

    Pretty      bool
    Human       bool
    ErrorTrace  bool
    FilterPath []string

```

```

Header http.Header

ctx context.Context
}

// Do executes the request and returns response or error.
func (r LicensePostRequest) Do(ctx context.Context, transport Transport) (*Response, error) {
    var (
        method string
        path strings.Builder
        params map[string]string
    )

    method = "PUT"

    path.Grow(len("/_license"))
    path.WriteString("/_license")

    params
    = make(map[string]string)

    if r.Acknowledge != nil {
        params["acknowledge"] = strconv.FormatBool(*r.Acknowledge)
    }

    if r.Pretty {
        params["pretty"] = "true"
    }

    if r.Human {
        params["human"] = "true"
    }

    if r.ErrorTrace {
        params["error_trace"] = "true"
    }

    if len(r.FilterPath) > 0 {
        params["filter_path"] = strings.Join(r.FilterPath, ",")
    }

    req, err := newRequest(method, path.String(), r.Body)
    if err != nil {
        return nil, err
    }

    if len(params) > 0 {
        q := req.URL.Query()

```

```

    for k, v := range params {
        q.Set(k, v)
    }
    req.URL.RawQuery = q.Encode()
}

if len(r.Header) > 0 {
    if len(req.Header) == 0 {
        req.Header = r.Header
    } else {
        for k, vv := range r.Header {
            for _, v := range vv {
                req.Header.Add(k, v)
            }
        }
    }
}

if r.Body != nil && req.Header.Get(headerContentType) == "" {
    req.Header[headerContentType] = headerContentTypeJSON
}

if ctx != nil {
    req = req.WithContext(ctx)
}

res, err
:= transport.Perform(req)
if err != nil {
    return nil, err
}

response := Response{
    StatusCode: res.StatusCode,
    Body:      res.Body,
    Header:    res.Header,
}

return &response, nil
}

// WithContext sets the request context.
func (f LicensePost) WithContext(v context.Context) func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        r.ctx = v
    }
}

```

```

// WithBody - licenses to be installed.
func (f LicensePost) WithBody(v io.Reader) func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        r.Body = v
    }
}

// WithAcknowledge - whether the user has acknowledged acknowledge messages (default: false).
func (f LicensePost) WithAcknowledge(v bool) func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        r.Acknowledge = &v
    }
}

// WithPretty makes the response body pretty-printed.
func (f LicensePost) WithPretty() func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        r.Pretty = true
    }
}

// WithHuman makes statistical values human-readable.
func
(f LicensePost) WithHuman() func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        r.Human = true
    }
}

// WithErrorTrace includes the stack trace for errors in the response body.
func (f LicensePost) WithErrorTrace() func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        r.ErrorTrace = true
    }
}

// WithFilterPath filters the properties of the response body.
func (f LicensePost) WithFilterPath(v ...string) func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        r.FilterPath = v
    }
}

// WithHeader adds the headers to the HTTP request.
func (f LicensePost) WithHeader(h map[string]string) func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
    }
}

```



```

    }
    for k, v := range h {
        r.Header.Add(k, v)
    }
}
}

// WithOpaqueID adds the X-Opaque-Id header to the HTTP request.
func (f LicensePost) WithOpaqueID(s string) func(*LicensePostRequest) {
    return func(r *LicensePostRequest) {
        {
            if r.Header == nil {
                r.Header = make(http.Header)
            }
            r.Header.Set("X-Opaque-Id", s)
        }
    }
}
name: License headers

on: [ pull_request ]

jobs:
    build:

        runs-on: ubuntu-latest

        steps:
            - uses: actions/checkout@v2

            - name: Check license headers
              run: |
                ./github/check-license-headers.sh
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```

```
//
// Code generated from specification version 7.17.10: DO NOT EDIT

package esapi

import (
    "context"
    "net/http"
    "strings"
)

func newLicenseGetBasicStatusFunc(t Transport) LicenseGetBasicStatus {
    return
    func(o ...func(*LicenseGetBasicStatusRequest)) (*Response, error) {
        var r = LicenseGetBasicStatusRequest{}
        for _, f := range o {
            f(&r)
        }
        return r.Do(r.ctx, t)
    }
}

// ----- API Definition -----

// LicenseGetBasicStatus - Retrieves information about the status of the basic license.
//
// See full documentation at https://www.elastic.co/guide/en/elasticsearch/reference/master/get-basic-status.html.
type LicenseGetBasicStatus func(o ...func(*LicenseGetBasicStatusRequest)) (*Response, error)

// LicenseGetBasicStatusRequest configures the License Get Basic Status API request.
type LicenseGetBasicStatusRequest struct {
    Pretty    bool
    Human     bool
    ErrorTrace bool
    FilterPath []string

    Header http.Header

    ctx context.Context
}

// Do executes the request and returns response or error.
func (r LicenseGetBasicStatusRequest) Do(ctx context.Context, transport Transport) (*Response, error) {
    var (
        method string
        path    strings.Builder
        params
    )
}
```

```

map[string]string
)

method = "GET"

path.Grow(len("/_license/basic_status"))
path.WriteString("/_license/basic_status")

params = make(map[string]string)

if r.Pretty {
    params["pretty"] = "true"
}

if r.Human {
    params["human"] = "true"
}

if r.ErrorTrace {
    params["error_trace"] = "true"
}

if len(r.FilterPath) > 0 {
    params["filter_path"] = strings.Join(r.FilterPath, ",")
}

req, err := newRequest(method, path.String(), nil)
if err != nil {
    return nil, err
}

if len(params) > 0 {
    q := req.URL.Query()
    for k, v := range params {
        q.Set(k, v)
    }
    req.URL.RawQuery = q.Encode()
}

if len(r.Header) > 0 {
    if len(req.Header) == 0 {
        req.Header = r.Header
    } else {
        for k, vv := range r.Header {
            for _, v := range vv {
                req.Header.Add(k, v)
            }
        }
    }
}

```

```

    }
}

if ctx != nil {
    req = req.WithContext(ctx)
}

res, err := transport.Perform(req)
if err != nil {
    return nil, err
}

response := Response{
    StatusCode: res.StatusCode,
    Body:
        res.Body,
    Header:    res.Header,
}

return &response, nil
}

// WithContext sets the request context.
func (f LicenseGetBasicStatus) WithContext(v context.Context) func(*LicenseGetBasicStatusRequest) {
    return func(r *LicenseGetBasicStatusRequest) {
        r.ctx = v
    }
}

// WithPretty makes the response body pretty-printed.
func (f LicenseGetBasicStatus) WithPretty() func(*LicenseGetBasicStatusRequest) {
    return func(r *LicenseGetBasicStatusRequest) {
        r.Pretty = true
    }
}

// WithHuman makes statistical values human-readable.
func (f LicenseGetBasicStatus) WithHuman() func(*LicenseGetBasicStatusRequest) {
    return func(r *LicenseGetBasicStatusRequest) {
        r.Human = true
    }
}

// WithErrorTrace includes the stack trace for errors in the response body.
func (f LicenseGetBasicStatus) WithErrorTrace() func(*LicenseGetBasicStatusRequest) {
    return func(r *LicenseGetBasicStatusRequest) {
        r.ErrorTrace = true
    }
}

```

```

}

// WithFilterPath filters the properties of the
response body.
func (f LicenseGetBasicStatus) WithFilterPath(v ...string) func(*LicenseGetBasicStatusRequest) {
return func(r *LicenseGetBasicStatusRequest) {
r.FilterPath = v
}
}

// WithHeader adds the headers to the HTTP request.
func (f LicenseGetBasicStatus) WithHeader(h map[string]string) func(*LicenseGetBasicStatusRequest) {
return func(r *LicenseGetBasicStatusRequest) {
if r.Header == nil {
r.Header = make(http.Header)
}
for k, v := range h {
r.Header.Add(k, v)
}
}
}

// WithOpaqueID adds the X-Opaque-Id header to the HTTP request.
func (f LicenseGetBasicStatus) WithOpaqueID(s string) func(*LicenseGetBasicStatusRequest) {
return func(r *LicenseGetBasicStatusRequest) {
if r.Header == nil {
r.Header = make(http.Header)
}
r.Header.Set("X-Opaque-Id", s)
}
}

```

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// Code generated from specification version 7.17.10: DO NOT EDIT

package esapi

import (
    "context"
    "net/http"
    "strconv"
    "strings"
)

func newLicenseGetFunc(t Transport) LicenseGet {
    return func(o ...func(*LicenseGetRequest))
        (*Response, error) {
            var r = LicenseGetRequest{}
            for _, f := range o {
                f(&r)
            }
            return r.Do(r.ctx, t)
        }
}

// ----- API Definition -----

// LicenseGet - Retrieves licensing information for the cluster
//
// See full documentation at https://www.elastic.co/guide/en/elasticsearch/reference/master/get-license.html.
type LicenseGet func(o ...func(*LicenseGetRequest)) (*Response, error)

// LicenseGetRequest configures the License Get API request.
type LicenseGetRequest struct {

```

```

AcceptEnterprise *bool
Local          *bool

Pretty    bool
Human     bool
ErrorTrace bool
FilterPath []string

Header http.Header

ctx context.Context
}

// Do executes the request and returns response or error.
func (r LicenseGetRequest) Do(ctx context.Context, transport Transport) (*Response, error) {
    var (
        method string
        path    strings.Builder
        params  map[string]string
    )

    method = "GET"

    path.Grow(len("/_license"))
    path.WriteString("/_license")

    params
    = make(map[string]string)

    if r.AcceptEnterprise != nil {
        params["accept_enterprise"] = strconv.FormatBool(*r.AcceptEnterprise)
    }

    if r.Local != nil {
        params["local"] = strconv.FormatBool(*r.Local)
    }

    if r.Pretty {
        params["pretty"] = "true"
    }

    if r.Human {
        params["human"] = "true"
    }

    if r.ErrorTrace {
        params["error_trace"] = "true"
    }
}

```

```
if len(r.FilterPath) > 0 {
    params["filter_path"] = strings.Join(r.FilterPath, ",")
}
```

```
req, err := newRequest(method, path.String(), nil)
if err != nil {
    return nil, err
}
```

```
if len(params) > 0 {
    q := req.URL.Query()
    for k, v := range params {
        q.Set(k, v)
    }
    req.URL.RawQuery = q.Encode()
}
```

```
if len(r.Header) > 0 {
    if len(req.Header) == 0 {
        req.Header = r.Header
    } else {
        for k, vv := range r.Header {
            for _, v := range vv {
                req.Header.Add(k, v)
            }
        }
    }
}
```

```
if ctx != nil {
    req = req.WithContext(ctx)
}
```

```
res, err := transport.Perform(req)
if
err != nil {
    return nil, err
}
```

```
response := Response{
    StatusCode: res.StatusCode,
    Body:      res.Body,
    Header:    res.Header,
}
```

```
return &response, nil
}
```

```

// WithContext sets the request context.
func (f LicenseGet) WithContext(v context.Context) func(*LicenseGetRequest) {
    return func(r *LicenseGetRequest) {
        r.ctx = v
    }
}

// WithAcceptEnterprise - if the active license is an enterprise license, return type as 'enterprise' (default: false).
func (f LicenseGet) WithAcceptEnterprise(v bool) func(*LicenseGetRequest) {
    return func(r *LicenseGetRequest) {
        r.AcceptEnterprise = &v
    }
}

// WithLocal - return local information, do not retrieve the state from master node (default: false).
func (f LicenseGet) WithLocal(v bool) func(*LicenseGetRequest) {
    return func(r *LicenseGetRequest) {
        r.Local = &v
    }
}

// WithPretty makes the response body pretty-printed.
func (f LicenseGet) WithPretty() func(*LicenseGetRequest) {
    return func(r *LicenseGetRequest) {
        r.Pretty = true
    }
}

//
// WithHuman makes statistical values human-readable.
func (f LicenseGet) WithHuman() func(*LicenseGetRequest) {
    return func(r *LicenseGetRequest) {
        r.Human = true
    }
}

// WithErrorTrace includes the stack trace for errors in the response body.
func (f LicenseGet) WithErrorTrace() func(*LicenseGetRequest) {
    return func(r *LicenseGetRequest) {
        r.ErrorTrace = true
    }
}

// WithFilterPath filters the properties of the response body.
func (f LicenseGet) WithFilterPath(v ...string) func(*LicenseGetRequest) {
    return func(r *LicenseGetRequest) {
        r.FilterPath = v
    }
}

```

```

}
}

// WithHeader adds the headers to the HTTP request.
func (f LicenseGet) WithHeader(h map[string]string) func(*LicenseGetRequest) {
return func(r *LicenseGetRequest) {
    if r.Header == nil {
        r.Header = make(http.Header)
    }
    for k, v := range h {
        r.Header.Add(k, v)
    }
}
}

// WithOpaqueID adds the X-Opaque-Id header to the HTTP request.
func (f LicenseGet) WithOpaqueID(s string) func(*LicenseGetRequest)
{
return func(r *LicenseGetRequest) {
    if r.Header == nil {
        r.Header = make(http.Header)
    }
    r.Header.Set("X-Opaque-Id", s)
}
}

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//
// Code generated from specification version 7.17.10: DO NOT EDIT

package esapi

import (
    "context"
    "net/http"
    "strings"
)

func newLicenseDeleteFunc(t Transport) LicenseDelete {
    return func(o ...func(*LicenseDeleteRequest))
        (*Response, error) {
            var r = LicenseDeleteRequest{}
            for _, f := range o {
                f(&r)
            }
            return r.Do(r.ctx, t)
        }
    }

// ----- API Definition -----

// LicenseDelete - Deletes licensing information for the cluster
//
// See full documentation at https://www.elastic.co/guide/en/elasticsearch/reference/master/delete-license.html.
type LicenseDelete func(o ...func(*LicenseDeleteRequest)) (*Response, error)

// LicenseDeleteRequest configures the License Delete API request.
type LicenseDeleteRequest struct {
    Pretty    bool
    Human     bool
    ErrorTrace bool
    FilterPath []string

    Header http.Header

    ctx context.Context
}
```

```

}

// Do executes the request and returns response or error.
func (r LicenseDeleteRequest) Do(ctx context.Context, transport Transport) (*Response, error) {
    var (
        method string
        path strings.Builder
        params map[string]string
    )

    method = "DELETE"

    path.Grow(len("/_license"))
    path.WriteString("/_license")

    params
    = make(map[string]string)

    if r.Pretty {
        params["pretty"] = "true"
    }

    if r.Human {
        params["human"] = "true"
    }

    if r.ErrorTrace {
        params["error_trace"] = "true"
    }

    if len(r.FilterPath) > 0 {
        params["filter_path"] = strings.Join(r.FilterPath, ",")
    }

    req, err := newRequest(method, path.String(), nil)
    if err != nil {
        return nil, err
    }

    if len(params) > 0 {
        q := req.URL.Query()
        for k, v := range params {
            q.Set(k, v)
        }
        req.URL.RawQuery = q.Encode()
    }

    if len(r.Header) > 0 {

```



```

if len(req.Header) == 0 {
    req.Header = r.Header
} else {
    for k, vv := range r.Header {
        for _, v := range vv {
            req.Header.Add(k, v)
        }
    }
}

if ctx != nil {
    req = req.WithContext(ctx)
}

res, err := transport.Perform(req)
if err != nil {
    return nil, err
}

response := Response{
    StatusCode: res.StatusCode,
    Body:      res.Body,
    Header:    res.Header,
}

return &response, nil
}

// WithContext sets the request context.
func
(f LicenseDelete) WithContext(v context.Context) func(*LicenseDeleteRequest) {
    return func(r *LicenseDeleteRequest) {
        r.ctx = v
    }
}

// WithPretty makes the response body pretty-printed.
func (f LicenseDelete) WithPretty() func(*LicenseDeleteRequest) {
    return func(r *LicenseDeleteRequest) {
        r.Pretty = true
    }
}

// WithHuman makes statistical values human-readable.
func (f LicenseDelete) WithHuman() func(*LicenseDeleteRequest) {
    return func(r *LicenseDeleteRequest) {
        r.Human = true
    }
}

```

```

}
}

// WithErrorTrace includes the stack trace for errors in the response body.
func (f LicenseDelete) WithErrorTrace() func(*LicenseDeleteRequest) {
    return func(r *LicenseDeleteRequest) {
        r.ErrorTrace = true
    }
}

// WithFilterPath filters the properties of the response body.
func (f LicenseDelete) WithFilterPath(v ...string) func(*LicenseDeleteRequest) {
    return func(r *LicenseDeleteRequest) {
        r.FilterPath = v
    }
}

// WithHeader adds the headers to the HTTP request.
func (f LicenseDelete)
    WithHeader(h map[string]string) func(*LicenseDeleteRequest) {
    return func(r *LicenseDeleteRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
        for k, v := range h {
            r.Header.Add(k, v)
        }
    }
}

// WithOpaqueID adds the X-Opaque-Id header to the HTTP request.
func (f LicenseDelete) WithOpaqueID(s string) func(*LicenseDeleteRequest) {
    return func(r *LicenseDeleteRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
        r.Header.Set("X-Opaque-Id", s)
    }
}

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//
// Code generated from specification version 7.17.10: DO NOT EDIT

package esapi

import (
    "context"
    "net/http"
    "strconv"
    "strings"
)

func newLicensePostStartTrialFunc(t Transport) LicensePostStartTrial
{
    return func(o ...func(*LicensePostStartTrialRequest)) (*Response, error) {
        var r = LicensePostStartTrialRequest{}
        for _, f := range o {
            f(&r)
        }
        return r.Do(r.ctx, t)
    }
}

// ----- API Definition -----

// LicensePostStartTrial - starts a limited time trial license.
//
// See full documentation at https://www.elastic.co/guide/en/elasticsearch/reference/master/start-trial.html.
type LicensePostStartTrial func(o ...func(*LicensePostStartTrialRequest)) (*Response, error)

// LicensePostStartTrialRequest configures the License Post Start Trial API request.
type LicensePostStartTrialRequest struct {
    Acknowledge *bool
    DocumentType string

    Pretty bool
    Human bool
    ErrorTrace bool
    FilterPath []string

    Header http.Header
}
```

```

ctx context.Context
}

// Do executes the request and returns response or error.
func (r LicensePostStartTrialRequest) Do(ctx context.Context, transport Transport) (*Response, error) {
    var (
        method
        string
        path strings.Builder
        params map[string]string
    )

    method = "POST"

    path.Grow(len("/_license/start_trial"))
    path.WriteString("/_license/start_trial")

    params = make(map[string]string)

    if r.Acknowledge != nil {
        params["acknowledge"] = strconv.FormatBool(*r.Acknowledge)
    }

    if r.DocumentType != "" {
        params["type"] = r.DocumentType
    }

    if r.Pretty {
        params["pretty"] = "true"
    }

    if r.Human {
        params["human"] = "true"
    }

    if r.ErrorTrace {
        params["error_trace"] = "true"
    }

    if len(r.FilterPath) > 0 {
        params["filter_path"] = strings.Join(r.FilterPath, ",")
    }

    req, err := newRequest(method, path.String(), nil)
    if err != nil {
        return nil, err
    }
}

```

```

if len(params) > 0 {
    q := req.URL.Query()
    for k, v := range params {
        q.Set(k, v)
    }
    req.URL.RawQuery = q.Encode()
}

if len(r.Header) > 0 {
    if len(req.Header) == 0 {
        req.Header = r.Header
    } else {
        for k, vv := range r.Header {
            for _, v := range vv {
                req.Header.Add(k, v)
            }
        }
    }
}

if
ctx != nil {
    req = req.WithContext(ctx)
}

res, err := transport.Perform(req)
if err != nil {
    return nil, err
}

response := Response{
    StatusCode: res.StatusCode,
    Body:      res.Body,
    Header:   res.Header,
}

return &response, nil
}

// WithContext sets the request context.
func (f LicensePostStartTrial) WithContext(v context.Context) func(*LicensePostStartTrialRequest) {
    return func(r *LicensePostStartTrialRequest) {
        r.ctx = v
    }
}

// WithAcknowledge - whether the user has acknowledged acknowledge messages (default: false).

```

```

func (f LicensePostStartTrial) WithAcknowledge(v bool) func(*LicensePostStartTrialRequest) {
    return func(r *LicensePostStartTrialRequest) {
        r.Acknowledge = &v
    }
}

// WithDocumentType - the type of trial license to generate (default: "trial").
func (f LicensePostStartTrial) WithDocumentType(v string) func(*LicensePostStartTrialRequest) {
    return func(r *LicensePostStartTrialRequest) {
        r.DocumentType = v
    }
}

// WithPretty
    makes the response body pretty-printed.
func (f LicensePostStartTrial) WithPretty() func(*LicensePostStartTrialRequest) {
    return func(r *LicensePostStartTrialRequest) {
        r.Pretty = true
    }
}

// WithHuman makes statistical values human-readable.
func (f LicensePostStartTrial) WithHuman() func(*LicensePostStartTrialRequest) {
    return func(r *LicensePostStartTrialRequest) {
        r.Human = true
    }
}

// WithErrorTrace includes the stack trace for errors in the response body.
func (f LicensePostStartTrial) WithErrorTrace() func(*LicensePostStartTrialRequest) {
    return func(r *LicensePostStartTrialRequest) {
        r.ErrorTrace = true
    }
}

// WithFilterPath filters the properties of the response body.
func (f LicensePostStartTrial) WithFilterPath(v ...string) func(*LicensePostStartTrialRequest) {
    return func(r *LicensePostStartTrialRequest) {
        r.FilterPath = v
    }
}

// WithHeader adds the headers to the HTTP request.
func (f LicensePostStartTrial) WithHeader(h map[string]string) func(*LicensePostStartTrialRequest) {
    {
        return func(r *LicensePostStartTrialRequest) {
            if r.Header == nil {
                r.Header = make(http.Header)
            }
        }
    }
}

```

```

    }
    for k, v := range h {
        r.Header.Add(k, v)
    }
}
}

// WithOpaqueID adds the X-Opaque-Id header to the HTTP request.
func (f LicensePostStartTrial) WithOpaqueID(s string) func(*LicensePostStartTrialRequest) {
    return func(r *LicensePostStartTrialRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
        r.Header.Set("X-Opaque-Id", s)
    }
}

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//
// Code generated from specification version 7.17.10: DO NOT EDIT

package esapi

import (
    "context"
    "net/http"
    "strings"
)

func newLicenseGetTrialStatusFunc(t Transport) LicenseGetTrialStatus {
    return
    func(o ...func(*LicenseGetTrialStatusRequest)) (*Response, error) {
        var r = LicenseGetTrialStatusRequest{}
        for _, f := range o {

```

```

    f(&r)
    }
    return r.Do(r.ctx, t)
}
}

// ----- API Definition -----

// LicenseGetTrialStatus - Retrieves information about the status of the trial license.
//
// See full documentation at https://www.elastic.co/guide/en/elasticsearch/reference/master/get-trial-status.html.
type LicenseGetTrialStatus func(o ...func(*LicenseGetTrialStatusRequest)) (*Response, error)

// LicenseGetTrialStatusRequest configures the License Get Trial Status API request.
type LicenseGetTrialStatusRequest struct {
    Pretty    bool
    Human     bool
    ErrorTrace bool
    FilterPath []string

    Header http.Header

    ctx context.Context
}

// Do executes the request and returns response or error.
func (r LicenseGetTrialStatusRequest) Do(ctx context.Context, transport Transport) (*Response, error) {
    var (
        method string
        path    strings.Builder
        params  map[string]string
    )

    method = "GET"

    path.Grow(len("/_license/trial_status"))
    path.WriteString("/_license/trial_status")

    params = make(map[string]string)

    if r.Pretty {
        params["pretty"] = "true"
    }

    if r.Human {
        params["human"] = "true"
    }
}

```



```

if r.ErrorTrace {
    params["error_trace"] = "true"
}

if len(r.FilterPath) > 0 {
    params["filter_path"] = strings.Join(r.FilterPath, ",")
}

req, err := newRequest(method, path.String(), nil)
if err != nil {
    return nil, err
}

if len(params) > 0 {
    q := req.URL.Query()
    for k, v := range params {
        q.Set(k, v)
    }
    req.URL.RawQuery = q.Encode()
}

if len(r.Header) > 0 {
    if len(req.Header) == 0 {
        req.Header = r.Header
    } else {
        for k, vv := range r.Header {
            for _, v := range vv {
                req.Header.Add(k, v)
            }
        }
    }
}

if ctx != nil {
    req = req.WithContext(ctx)
}

res, err := transport.Perform(req)
if err != nil {
    return nil, err
}

response := Response{
    StatusCode: res.StatusCode,
    Body:
        res.Body,
    Header:    res.Header,
}

```

```

}

return &response, nil
}

// WithContext sets the request context.
func (f LicenseGetTrialStatus) WithContext(v context.Context) func(*LicenseGetTrialStatusRequest) {
    return func(r *LicenseGetTrialStatusRequest) {
        r.ctx = v
    }
}

// WithPretty makes the response body pretty-printed.
func (f LicenseGetTrialStatus) WithPretty() func(*LicenseGetTrialStatusRequest) {
    return func(r *LicenseGetTrialStatusRequest) {
        r.Pretty = true
    }
}

// WithHuman makes statistical values human-readable.
func (f LicenseGetTrialStatus) WithHuman() func(*LicenseGetTrialStatusRequest) {
    return func(r *LicenseGetTrialStatusRequest) {
        r.Human = true
    }
}

// WithErrorTrace includes the stack trace for errors in the response body.
func (f LicenseGetTrialStatus) WithErrorTrace() func(*LicenseGetTrialStatusRequest) {
    return func(r *LicenseGetTrialStatusRequest) {
        r.ErrorTrace = true
    }
}

// WithFilterPath filters the properties of the
response body.
func (f LicenseGetTrialStatus) WithFilterPath(v ...string) func(*LicenseGetTrialStatusRequest) {
    return func(r *LicenseGetTrialStatusRequest) {
        r.FilterPath = v
    }
}

// WithHeader adds the headers to the HTTP request.
func (f LicenseGetTrialStatus) WithHeader(h map[string]string) func(*LicenseGetTrialStatusRequest) {
    return func(r *LicenseGetTrialStatusRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
        for k, v := range h {

```

```

    r.Header.Add(k, v)
}
}
}

// WithOpaqueID adds the X-Opaque-Id header to the HTTP request.
func (f LicenseGetTrialStatus) WithOpaqueID(s string) func(*LicenseGetTrialStatusRequest) {
    return func(r *LicenseGetTrialStatusRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
        r.Header.Set("X-Opaque-Id", s)
    }
}

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//
// Code generated from specification version 7.17.10: DO NOT EDIT

package esapi

import (
    "context"
    "net/http"
    "strconv"
    "strings"
)

func newLicensePostStartBasicFunc(t Transport) LicensePostStartBasic
{
    return func(o ...func(*LicensePostStartBasicRequest)) (*Response, error) {
        var r = LicensePostStartBasicRequest{}
        for _, f := range o {
            f(&r)
        }
    }
}

```

```

    }
    return r.Do(r.ctx, t)
  }
}

// ----- API Definition -----

// LicensePostStartBasic - Starts an indefinite basic license.
//
// See full documentation at https://www.elastic.co/guide/en/elasticsearch/reference/master/start-basic.html.
type LicensePostStartBasic func(o ...func(*LicensePostStartBasicRequest)) (*Response, error)

// LicensePostStartBasicRequest configures the License Post Start Basic API request.
type LicensePostStartBasicRequest struct {
  Acknowledge *bool

  Pretty    bool
  Human     bool
  ErrorTrace bool
  FilterPath []string

  Header http.Header

  ctx context.Context
}

// Do executes the request and returns response or error.
func (r LicensePostStartBasicRequest) Do(ctx context.Context, transport Transport) (*Response, error) {
  var (
    method string
    path    strings.Builder
    params  map[string]string
  )

  method = "POST"

  path.Grow(len("/_license/start_basic"))
  path.WriteString("/_license/start_basic")

  params = make(map[string]string)

  if r.Acknowledge != nil {
    params["acknowledge"] = strconv.FormatBool(*r.Acknowledge)
  }

  if r.Pretty {
    params["pretty"] = "true"
  }
}

```

```

}

if r.Human {
    params["human"] = "true"
}

if r.ErrorTrace {
    params["error_trace"] = "true"
}

if len(r.FilterPath) > 0 {
    params["filter_path"] = strings.Join(r.FilterPath, ",")
}

req, err := newRequest(method, path.String(), nil)
if err != nil {
    return nil, err
}

if len(params) > 0 {
    q := req.URL.Query()
    for k, v := range params {
        q.Set(k, v)
    }
    req.URL.RawQuery = q.Encode()
}

if len(r.Header) > 0 {
    if len(req.Header) == 0 {
        req.Header = r.Header
    } else {
        for k, vv := range r.Header {
            for _, v := range vv {
                req.Header.Add(k, v)
            }
        }
    }
}

if ctx != nil {
    req = req.WithContext(ctx)
}

res, err := transport.Perform(req)
if
err != nil {
    return nil, err
}

```

```

response := Response{
    StatusCode: res.StatusCode,
    Body:      res.Body,
    Header:    res.Header,
}

return &response, nil
}

// WithContext sets the request context.
func (f LicensePostStartBasic) WithContext(v context.Context) func(*LicensePostStartBasicRequest) {
    return func(r *LicensePostStartBasicRequest) {
        r.ctx = v
    }
}

// WithAcknowledge - whether the user has acknowledged acknowledge messages (default: false).
func (f LicensePostStartBasic) WithAcknowledge(v bool) func(*LicensePostStartBasicRequest) {
    return func(r *LicensePostStartBasicRequest) {
        r.Acknowledge = &v
    }
}

// WithPretty makes the response body pretty-printed.
func (f LicensePostStartBasic) WithPretty() func(*LicensePostStartBasicRequest) {
    return func(r *LicensePostStartBasicRequest) {
        r.Pretty = true
    }
}

// WithHuman makes statistical values human-readable.
func (f LicensePostStartBasic) WithHuman() func(*LicensePostStartBasicRequest) {
    return
    func(r *LicensePostStartBasicRequest) {
        r.Human = true
    }
}

// WithErrorTrace includes the stack trace for errors in the response body.
func (f LicensePostStartBasic) WithErrorTrace() func(*LicensePostStartBasicRequest) {
    return func(r *LicensePostStartBasicRequest) {
        r.ErrorTrace = true
    }
}

// WithFilterPath filters the properties of the response body.
func (f LicensePostStartBasic) WithFilterPath(v ...string) func(*LicensePostStartBasicRequest) {

```

```

return func(r *LicensePostStartBasicRequest) {
    r.FilterPath = v
}
}

// WithHeader adds the headers to the HTTP request.
func (f LicensePostStartBasic) WithHeader(h map[string]string) func(*LicensePostStartBasicRequest) {
    return func(r *LicensePostStartBasicRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
        for k, v := range h {
            r.Header.Add(k, v)
        }
    }
}

// WithOpaqueID adds the X-Opaque-Id header to the HTTP request.
func (f LicensePostStartBasic) WithOpaqueID(s string) func(*LicensePostStartBasicRequest)
{
    return func(r *LicensePostStartBasicRequest) {
        if r.Header == nil {
            r.Header = make(http.Header)
        }
        r.Header.Set("X-Opaque-Id", s)
    }
}

```

1.37 busybox 1.37.0-r13

1.37.1 Available under license :

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Julian Seward, Cambridge, UK.

jseward@bzip.org

bzip2/libbzip2 version 1.0.4 of 20 December 2006

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1.38 alpine-baselayout-data 3.6.8-r1

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# Automatically generated by apkbuild-cpan, template 1
# Contributor: Francesco Colista <francesco.colista@gmail.com>
# Maintainer: Francesco Colista <francesco.colista@gmail.com>
pkgname=perl-software-license
_pkgreal=Software-License
pkgver=0.103004
pkgrel=0
pkgdesc="packages that provide templated software licenses"
url="http://search.cpan.org/dist/Software-License/"
arch="noarch"
license="GPL PerlArtistic"
cpandepends="perl-text-template perl-data-section perl-sub-install"
cpanmakedepends=""
depends="$cpandepends"
makedepends="perl-dev $cpanmakedepends"
subpackages="$pkgname-doc"
source="http://search.cpan.org/CPAN/authors/id/R/RJ/RJBS/_pkgreal-$pkgver.tar.gz"

_buildddir="$srcdir/_pkgreal-$pkgver"

prepare() {
    cd "$_buildddir"
    export CFLAGS=`perl -MConfig -E 'say $Config{ccflags}`
    PERL_MM_USE_DEFAULT=1 perl Makefile.PL INSTALLDIRS=vendor
}

build() {
    cd "$_buildddir"
    export CFLAGS=`perl -MConfig -E 'say $Config{ccflags}`
    make && make test
}

package() {
    cd "$_buildddir"
```



```
make
DESTDIR="$pkgdir" install || return 1
find "$pkgdir" \( -name perllocal.pod -o -name .packlist \) -delete
}
```

md5sums="0c5fd53d93818566234578b27d667b35 Software-License-0.103004.tar.gz"

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pkgname=py-flake8-copyright

_pkgname=flake8-copyright

pkgver=0.2.0

pkgrel=0

pkgdesc="Extension for flake8 which checks for copyrights"

url="https://github.com/savoirfairelinux/flake8-copyright"

arch="noarch"

license="MIT"

depends="flake8"

makedepends="python3-dev"

source="https://files.pythonhosted.org/packages/source/\${_pkgname:0:1}/\${_pkgname}/\${_pkgname}-\${pkgver}.tar.gz"

builddir="\$srcdir"/\${_pkgname}-\${pkgver}

build() {

cd "\$builddir"

```
python3 setup.py build || return 1
}

package() {
    cd "$builddir"
    python3 setup.py install --prefix=/usr --root="$pkgdir" || return 1
}

md5sums="c6348990c6d74933bf5d5f6a55a14bdf flake8-copyright-0.2.0.tar.gz"
sha256sums="aeef26eb4d5223c9cd5b101e68175fcef6d2b353bf36da688fdde62fccfe2b73 flake8-copyright-0.2.0.tar.gz"
sha512sums="bab1bfaeed3a525ac3c7da12b1f2ec338c204cc69b72d05cd39560e528faff5d586c3b1be9570f4a977a7e2417b586e543bfba12abce256b2023c8c4993eeb90
flake8-copyright-0.2.0.tar.gz"
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mini_sendmail - accept email on behalf of real sendmail

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Maintainer: Natanael Copa <ncopa@alpinelinux.org>

pkgname=libart-lgpl

pkgver=2.3.21

pkgrel=5

pkgdesc="A library for high-performance 2D graphics"

url="http://www.levien.com/libart/"

arch="all"

license="LGPL"

depends=

makedepends=

subpackages="\$pkgname-dev"

source="http://ftp.gnome.org/pub/GNOME/sources/libart-lgpl/2.3/libart-lgpl-\$pkgver.tar.bz2"

"

```

_buildddir="$srcdir"/libart_lgpl-$pkgver

prepare() {
    cd "$_buildddir"
    update_config_sub || return 1
}

build() {
    cd "$_buildddir"
    ./configure \
        --build=$CBUILD \
        --host=$CHOST \
        --prefix=/usr \
    || return 1
    make || return 1
}

package() {
    cd "$_buildddir"
    make DESTDIR="$pkgdir" install || return 1
}

md5sums="08559ff3c67fd95d57b0c5e91a6b4302 libart_lgpl-2.3.21.tar.bz2"
# Automatically generated by apkbuild-cpan, template 1
# Contributor: Valery Kartel <valery.kartel@gmail.com>
# Maintainer: Valery Kartel <valery.kartel@gmail.com>
pkgname=perl-bsd-resource
_pkgreal=BSD-Resource
pkgver=1.2909
pkgrel=1
pkgdesc="Perl extension implements the BSD process resource limit functions"
url="http://search.cpan.org/dist/BSD-Resource/"
arch="all"
license="GPL PerlArtistic"
cpandepends=""
cpanmakedepends=" "
depends="$cpandepends"
makedepends="perl-dev $cpanmakedepends"
subpackages="$pkgname-doc"
source="http://search.cpan.org/CPAN/authors/id/J/JH/JHI/${_pkgreal}-${pkgver}.tar.gz"

_buildddir="$srcdir/${_pkgreal}-${pkgver}"

prepare() {
    cd "$_buildddir"
    export CFLAGS=`perl -MConfig -E 'say $Config{ccflags}`
    PERL_MM_USE_DEFAULT=1 perl Makefile.PL INSTALLDIRS=vendor
}

```

```

build() {
    cd "$_builddir"
    export CFLAGS=`perl -MConfig -E 'say $Config{ccflags}'`
    make && make test || return 1
}

package() {
    cd "$_builddir"
    make DESTDIR="$pkgdir" install || return 1
    find "$pkgdir"
    \(-name perllocal.pod -o -name .packlist\) -delete
}

md5sums="3c6dd2fa953088aa87e263f40818d012 BSD-Resource-1.2909.tar.gz"
sha256sums="c47d460e2bd00d8d049f6ff4a0f1f61957e289e8de45af5fc79e851e2e855e06 BSD-Resource-1.2909.tar.gz"
sha512sums="5f489eaac5089e82081b7cf51d62638750e443751b49415407354da96b17771819b5e6e85529faa41ddd85743363750157943c7f7700276cce2bd40a429fa430 BSD-Resource-1.2909.tar.gz"

```

1.39 busybox 1.37.0-r14

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=====

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Julian Seward, Cambridge, UK.

jseward@bzip.org

bzip2/libbzip2 version 1.0.4 of 20 December 2006

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1.40 musl-utils 1.2.5-r9

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1.43 github.com/go-logr/stdr 1.2.2

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1.46 logrus 1.9.3

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1.47 perks 1.0.1

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1.48 prometheus-client 1.22.0

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1.49 clientmodel 0.6.2

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1.51 confluentinc-confluent-kafka-go 2.10.0

1.51.1 Available under license :

```
// Code generated by smithy-go-codegen DO NOT EDIT.
```

```
package licensemanager
```

```
import (  
    "context"  
    "fmt"  
    awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"  
    "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"  
    "github.com/aws/smithy-go/middleware"  
    smithyhttp "github.com/aws/smithy-go/transport/http"  
)
```

```
// Lists received licenses.
```

```
func (c *Client) ListReceivedLicenses(ctx context.Context, params *ListReceivedLicensesInput, optFns  
...func(*Options)) (*ListReceivedLicensesOutput, error) {  
    if params == nil {
```

```

params = &ListReceivedLicensesInput{}
}

result, metadata, err := c.invokeOperation(ctx, "ListReceivedLicenses", params, optFns,
c.addOperationListReceivedLicensesMiddlewares)
if err != nil {
    return nil, err
}

out := result.(*ListReceivedLicensesOutput)
out.ResultMetadata = metadata
return out, nil
}

```

```

type ListReceivedLicensesInput struct {

    // Filters to scope the results. The following filters are supported:
    //
    // - ProductSKU
    //
    // - Status
    //
    //
    // - Fingerprint
    //
    // - IssuerName
    //
    // - Beneficiary
    Filters []types.Filter

    // Amazon Resource Names (ARNs) of the licenses.
    LicenseArns []string

    // Maximum number of results to return in a single call.
    MaxResults *int32

    // Token for the next set of results.
    NextToken *string

    noSmithyDocumentSerde
}

```

```

type ListReceivedLicensesOutput struct {

    // Received license details.
    Licenses []types.GrantedLicense

    // Token for the next set of results.

```

```

NextToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationListReceivedLicensesMiddlewares(stack *middleware.Stack, options Options) (err
error) {
    if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
        return err
    }
    err = stack.Serialize.Add(&awsAwsjson11_serializeOpListReceivedLicenses{}, middleware.After)
    if err != nil {
        return err
    }
    err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListReceivedLicenses{},
middleware.After)
    if err != nil {
        return err
    }
    if err := addProtocolFinalizerMiddlewares(stack, options, "ListReceivedLicenses"); err != nil {
        return fmt.Errorf("add protocol finalizers: %v", err)
    }

    if err = addLegacyEndpointContextSetter(stack, options); err != nil {
        return err
    }
    if err = addSetLoggerMiddleware(stack, options); err != nil {
        return err
    }
    if err = addClientRequestID(stack); err != nil {
        return err
    }
    if err = addComputeContentLength(stack); err != nil {
        return err
    }
    if err = addResolveEndpointMiddleware(stack, options); err != nil {
        return err
    }
    if err = addComputePayloadSHA256(stack); err != nil {
        return err
    }
    if err = addRetry(stack, options); err != nil {
        return err
    }
    if err = addRawResponseToMetadata(stack); err != nil {

```

```

return err
}
if err = addRecordResponseTiming(stack); err != nil {
return err
}
if err = addSpanRetryLoop(stack, options); err != nil {
return err
}
if err =
addClientUserAgent(stack, options); err != nil {
return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
return err
}
if err = addCredentialSource(stack, options); err != nil {
return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListReceivedLicenses(options.Region),
middleware.Before); err != nil {
return err
}
if err = addRecursionDetection(stack); err != nil {
return err
}
if err = addRequestIDRetrieverMiddleware(stack); err != nil {
return err
}
if err = addResponseErrorMiddleware(stack); err != nil {
return err
}
if err = addRequestResponseLogging(stack, options); err != nil {
return
err
}
if err = addDisableHTTPSMiddleware(stack, options); err != nil {

```

```

    return err
}
if err = addSpanInitializeStart(stack); err != nil {
    return err
}
if err = addSpanInitializeEnd(stack); err != nil {
    return err
}
if err = addSpanBuildRequestStart(stack); err != nil {
    return err
}
if err = addSpanBuildRequestEnd(stack); err != nil {
    return err
}
return nil
}

func newServiceMetadataMiddleware_opListReceivedLicenses(region string)
*awsmiddleware.RegisterServiceMetadata {
return &awsmiddleware.RegisterServiceMetadata{
    Region:    region,
    ServiceID: ServiceID,
    OperationName: "ListReceivedLicenses",
}
}
DeleteLicense
Initialize stack step
spanInitializeStart
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
spanInitializeEnd
Serialize stack step
spanBuildRequestStart
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
SetCredentialSourceMiddleware
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
spanBuildRequestEnd
Finalize stack step
spanRetryLoop

```

```

Retry
RetryMetricsHeader
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
name: License Scan

on: [pull_request]

jobs:
  licensescan:
    name: License Scan
    runs-on: ubuntu-latest
    strategy:
      matrix:
        python-version: [3.9]

    steps:
      - name: Checkout target
        uses: actions/checkout@v2
        with:
          path: sdkbase
          ref: ${ github.base_ref }
      - name: Checkout this ref
        uses: actions/checkout@v2
        with:
          path: new-ref
          fetch-depth: 0
      - name: Get Diff
        run: git --git-dir ./new-ref/.git diff --name-only --diff-filter=ACMRT ${ github.event.pull_request.base.sha }
        ${ github.sha } > refDiffFiles.txt
      - name: Get Target Files
        run: git --git-dir ./sdkbase/.git ls-files | grep -xf refDiffFiles.txt - > targetFiles.txt
      - name: Checkout scancode

```

```

    uses: actions/checkout@v2
  with:
    repository: nexB/scancode-toolkit
    path: scancode-toolkit
    fetch-depth: 1
- name: Set up Python ${ matrix.python-version }
  uses: actions/setup-python@v2
  with:
    python-version: ${ matrix.python-version }
# ScanCode
- name: Self-configure scancode
  working-directory: ./scancode-toolkit
  run: ./scancode --help
- name: Run Scan code on target
  run: cat targetFiles.txt | while read filename; do echo ./sdkbase/$filename; done | xargs ./scancode-
toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> old-licenses.txt
- name: Run Scan code on pr ref
  run: cat refDiffFiles.txt | while read filename; do echo ./new-ref/$filename; done | xargs ./scancode-
toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> new-licenses.txt
# compare
- name: License test
  run: if ! cmp old-licenses.txt new-licenses.txt; then echo "Licenses differ! Failing."; exit -1; else echo "Licenses
are the same. Success."; exit 0; fi
ListLicenses
Initialize stack step
spanInitializeStart
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
spanInitializeEnd
Serialize stack step
spanBuildRequestStart
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
SetCredentialSourceMiddleware
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
spanBuildRequestEnd
Finalize stack step
spanRetryLoop
Retry
RetryMetricsHeader
ResolveAuthScheme

```

```

GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
    "context"
    "fmt"
    awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
    "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
    "github.com/aws/smithy-go/middleware"
    smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Creates a license.
func (c *Client) CreateLicense(ctx context.Context, params *CreateLicenseInput, optFns ...func(*Options))
(*CreateLicenseOutput, error) {
    if params == nil {
        params = &CreateLicenseInput{}
    }

    result, metadata, err := c.invokeOperation(ctx, "CreateLicense", params, optFns,
c.addOperationCreateLicenseMiddlewares)
    if err != nil {
        return nil, err
    }

    out := result.(*CreateLicenseOutput)
    out.ResultMetadata = metadata
    return out, nil
}

type CreateLicenseInput struct {

```



```
// License beneficiary.
//
// This member is required.
Beneficiary *string

// Unique, case-sensitive identifier that you provide to ensure the idempotency of
// the request.
//
//
This member is required.
ClientToken *string

// Configuration for consumption of the license. Choose a provisional
// configuration for workloads running with continuous connectivity. Choose a
// borrow configuration for workloads with offline usage.
//
// This member is required.
ConsumptionConfiguration *types.ConsumptionConfiguration

// License entitlements.
//
// This member is required.
Entitlements []types.Entitlement

// Home Region for the license.
//
// This member is required.
HomeRegion *string

// License issuer.
//
// This member is required.
Issuer *types.Issuer

// License name.
//
// This member is required.
LicenseName *string

// Product name.
//
// This member is required.
ProductName *string

// Product SKU.
//
// This member is required.
```

```

ProductSKU *string

// Date and time range during which the license is valid, in ISO8601-UTC format.
//
// This member is required.
Validity *types.DatetimeRange

// Information about
the license.
LicenseMetadata []types.Metadata

noSmithyDocumentSerde
}

type CreateLicenseOutput struct {

// Amazon Resource Name (ARN) of the license.
LicenseArn *string

// License status.
Status types.LicenseStatus

// License version.
Version *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationCreateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
return err
}
err = stack.Serialize.Add(&awsAwsjson11_serializeOpCreateLicense{}, middleware.After)
if err != nil {
return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCreateLicense{}, middleware.After)
if err != nil {
return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "CreateLicense"); err != nil {
return fmt.Errorf("add protocol finalizers: %v", err)
}
}

if

```

```

err = addLegacyEndpointContextSetter(stack, options); err != nil {
    return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
    return err
}
if err = addClientRequestID(stack); err != nil {
    return err
}
if err = addComputeContentLength(stack); err != nil {
    return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
    return err
}
if err = addComputePayloadSHA256(stack); err != nil {
    return err
}
if err = addRetry(stack, options); err != nil {
    return err
}
if err = addRawResponseToMetadata(stack); err != nil {
    return err
}
if err = addRecordResponseTiming(stack); err != nil {
    return err
}
if err = addSpanRetryLoop(stack, options); err != nil {
    return err
}
if err = addClientUserAgent(stack, options); err != nil {
    return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
    return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
    return err
}
if err
= addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
    return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
    return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
    return err
}

```

```

}
if err = addCredentialSource(stack, options); err != nil {
    return err
}
if err = addOpCreateLicenseValidationMiddleware(stack); err != nil {
    return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCreateLicense(options.Region),
middleware.Before); err != nil {
    return err
}
if err = addRecursionDetection(stack); err != nil {
    return err
}
if err = addRequestIDRetrieverMiddleware(stack); err != nil {
    return err
}
if err = addResponseErrorMiddleware(stack); err != nil {
    return err
}
if err = addRequestResponseLogging(stack, options); err != nil {
    return err
}
if err = addDisableHTTPSMiddleware(stack, options); err != nil {
    return err
}
if err = addSpanInitializeStart(stack); err != nil {
    return err
}
if err
= addSpanInitializeEnd(stack); err != nil {
    return err
}
if err = addSpanBuildRequestStart(stack); err != nil {
    return err
}
if err = addSpanBuildRequestEnd(stack); err != nil {
    return err
}
return nil
}

func newServiceMetadataMiddleware_opCreateLicense(region string) *awsmiddleware.RegisterServiceMetadata {
return &awsmiddleware.RegisterServiceMetadata{
    Region:    region,
    ServiceID: ServiceID,
    OperationName: "CreateLicense",
}
}

```

```

}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
    "context"
    "fmt"
    awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
    "github.com/aws/aws-sdk-go-v2/service/grafana/types"
    "github.com/aws/smithy-go/middleware"
    smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Removes the Grafana Enterprise license from a workspace.
func (c *Client) DisassociateLicense(ctx context.Context, params *DisassociateLicenseInput, optFns
...func(*Options)) (*DisassociateLicenseOutput, error) {
    if params == nil {
        params = &DisassociateLicenseInput{}
    }

    result, metadata, err := c.invokeOperation(ctx, "DisassociateLicense", params, optFns,
c.addOperationDisassociateLicenseMiddlewares)
    if err != nil {
        return nil, err
    }

    out := result.(*DisassociateLicenseOutput)
    out.ResultMetadata = metadata
    return out, nil
}

type DisassociateLicenseInput struct {

    // The type of license to remove from the workspace.
    //
    // This member is required.
    LicenseType types.LicenseType

    //
    // The ID of the workspace to remove the Grafana Enterprise license from.
    //
    // This member is required.
    WorkspaceId *string

    noSmithyDocumentSerde
}

```

```

type DisassociateLicenseOutput struct {

    // A structure containing information about the workspace.
    //
    // This member is required.
    Workspace *types.WorkspaceDescription

    // Metadata pertaining to the operation's result.
    ResultMetadata middleware.Metadata

    noSmithyDocumentSerde
}

func (c *Client) addOperationDisassociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
    if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
        return err
    }
    err = stack.Serialize.Add(&awsRestjson1_serializeOpDisassociateLicense{}, middleware.After)
    if err != nil {
        return err
    }
    err = stack.Deserialize.Add(&awsRestjson1_deserializeOpDisassociateLicense{}, middleware.After)
    if err != nil {
        return err
    }
    if err := addProtocolFinalizerMiddlewares(stack, options, "DisassociateLicense");
    err != nil {
        return fmt.Errorf("add protocol finalizers: %v", err)
    }

    if err = addLegacyEndpointContextSetter(stack, options); err != nil {
        return err
    }
    if err = addSetLoggerMiddleware(stack, options); err != nil {
        return err
    }
    if err = addClientRequestID(stack); err != nil {
        return err
    }
    if err = addComputeContentLength(stack); err != nil {
        return err
    }
    if err = addResolveEndpointMiddleware(stack, options); err != nil {
        return err
    }
    if err = addComputePayloadSHA256(stack); err != nil {
        return err
    }

```

```

}
if err = addRetry(stack, options); err != nil {
    return err
}
if err = addRawResponseToMetadata(stack); err != nil {
    return err
}
if err = addRecordResponseTiming(stack); err != nil {
    return err
}
if err = addSpanRetryLoop(stack, options); err != nil {
    return err
}
if err = addClientUserAgent(stack, options); err != nil {
    return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
    return err
}
if
err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
    return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
    return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
    return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
    return err
}
if err = addCredentialSource(stack, options); err != nil {
    return err
}
if err = addOpDisassociateLicenseValidationMiddleware(stack); err != nil {
    return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDisassociateLicense(options.Region),
middleware.Before); err != nil {
    return err
}
if err = addRecursionDetection(stack); err != nil {
    return err
}
if err = addRequestIDRetrieverMiddleware(stack); err != nil {
    return err
}
}

```

```

if err = addResponseErrorMiddleware(stack); err != nil {
    return err
}
if err = addRequestResponseLogging(stack, options); err != nil {
    return err
}
if err = addDisableHTTPSMiddleware(stack, options);
err != nil {
    return err
}
if err = addSpanInitializeStart(stack); err != nil {
    return err
}
if err = addSpanInitializeEnd(stack); err != nil {
    return err
}
if err = addSpanBuildRequestStart(stack); err != nil {
    return err
}
if err = addSpanBuildRequestEnd(stack); err != nil {
    return err
}
return nil
}

func newServiceMetadataMiddleware_opDisassociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
return &awsmiddleware.RegisterServiceMetadata{
    Region:    region,
    ServiceID: ServiceID,
    OperationName: "DisassociateLicense",
}
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
    "context"
    "fmt"
    awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
    "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
    "github.com/aws/smithy-go/middleware"
    smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Deletes the specified license.
func (c *Client) DeleteLicense(ctx context.Context, params *DeleteLicenseInput, optFns ...func(*Options))

```



```

(*DeleteLicenseOutput, error) {
    if params == nil {
        params = &DeleteLicenseInput{}
    }

    result, metadata, err := c.invokeOperation(ctx, "DeleteLicense", params, optFns,
c.addOperationDeleteLicenseMiddlewares)
    if err != nil {
        return nil, err
    }

    out := result.(*DeleteLicenseOutput)
    out.ResultMetadata = metadata
    return out, nil
}

type DeleteLicenseInput struct {

    // Amazon Resource Name (ARN) of the license.
    //
    // This member is required.
    LicenseArn *string

    // Current version of the license.
    //
    // This member is required.
    SourceVersion
    *string

    noSmithyDocumentSerde
}

type DeleteLicenseOutput struct {

    // Date when the license is deleted.
    DeletionDate *string

    // License status.
    Status types.LicenseDeletionStatus

    // Metadata pertaining to the operation's result.
    ResultMetadata middleware.Metadata

    noSmithyDocumentSerde
}

func (c *Client) addOperationDeleteLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
    if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {

```

```

    return err
}
err = stack.Serialize.Add(&awsAwsjson11_serializeOpDeleteLicense{}, middleware.After)
if err != nil {
    return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpDeleteLicense{}, middleware.After)
if err != nil {
    return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "DeleteLicense"); err != nil {
    return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addLegacyEndpointContextSetter(stack, options); err !=
nil {
    return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
    return err
}
if err = addClientRequestID(stack); err != nil {
    return err
}
if err = addComputeContentLength(stack); err != nil {
    return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
    return err
}
if err = addComputePayloadSHA256(stack); err != nil {
    return err
}
if err = addRetry(stack, options); err != nil {
    return err
}
if err = addRawResponseToMetadata(stack); err != nil {
    return err
}
if err = addRecordResponseTiming(stack); err != nil {
    return err
}
if err = addSpanRetryLoop(stack, options); err != nil {
    return err
}
if err = addClientUserAgent(stack, options); err != nil {
    return err
}
}

```

```

if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
    return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
    return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err
!= nil {
    return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
    return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
    return err
}
if err = addCredentialSource(stack, options); err != nil {
    return err
}
if err = addOpDeleteLicenseValidationMiddleware(stack); err != nil {
    return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDeleteLicense(options.Region),
middleware.Before); err != nil {
    return err
}
if err = addRecursionDetection(stack); err != nil {
    return err
}
if err = addRequestIDRetrieverMiddleware(stack); err != nil {
    return err
}
if err = addResponseErrorMiddleware(stack); err != nil {
    return err
}
if err = addRequestResponseLogging(stack, options); err != nil {
    return err
}
if err = addDisableHTTPSMiddleware(stack, options); err != nil {
    return err
}
if err = addSpanInitializeStart(stack); err != nil {
    return err
}
if err = addSpanInitializeEnd(stack); err != nil {
    return err
}
if

```

```

err = addSpanBuildRequestStart(stack); err != nil {
    return err
}
if err = addSpanBuildRequestEnd(stack); err != nil {
    return err
}
return nil
}

func newServiceMetadataMiddleware_opDeleteLicense(region string) *awsmiddleware.RegisterServiceMetadata {
return &awsmiddleware.RegisterServiceMetadata{
    Region:    region,
    ServiceID: ServiceID,
    OperationName: "DeleteLicense",
}
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
    "context"
    "fmt"
    awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
    "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
    "github.com/aws/smithy-go/middleware"
    smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists the licenses for your account.
func (c *Client) ListLicenses(ctx context.Context, params *ListLicensesInput, optFns ...func(*Options))
(*ListLicensesOutput, error) {
    if params == nil {
        params = &ListLicensesInput{}
    }

    result, metadata, err := c.invokeOperation(ctx, "ListLicenses", params, optFns,
c.addOperationListLicensesMiddlewares)
    if err != nil {
        return nil, err
    }

    out := result.(*ListLicensesOutput)
    out.ResultMetadata = metadata
    return out, nil
}

type ListLicensesInput struct {

```

```

// Filters to scope the results. The following filters are supported:
//
// - Beneficiary
//
// - ProductSKU
//
// - Fingerprint
//
// - Status
Filters
[]types.Filter

// Amazon Resource Names (ARNs) of the licenses.
LicenseArns []string

// Maximum number of results to return in a single call.
MaxResults *int32

// Token for the next set of results.
NextToken *string

noSmithyDocumentSerde
}

type ListLicensesOutput struct {

// License details.
Licenses []types.License

// Token for the next set of results.
NextToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationListLicensesMiddlewares(stack *middleware.Stack, options Options) (err error) {
if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
return err
}
err = stack.Serialize.Add(&awsAwsjson11_serializeOpListLicenses{}, middleware.After)
if err != nil {
return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListLicenses{}, middleware.After)

```

```

if err != nil {
    return err
}
if err := addProtocolFinalizerMiddlewares(stack,
options, "ListLicenses"); err != nil {
    return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addLegacyEndpointContextSetter(stack, options); err != nil {
    return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
    return err
}
if err = addClientRequestID(stack); err != nil {
    return err
}
if err = addComputeContentLength(stack); err != nil {
    return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
    return err
}
if err = addComputePayloadSHA256(stack); err != nil {
    return err
}
if err = addRetry(stack, options); err != nil {
    return err
}
if err = addRawResponseToMetadata(stack); err != nil {
    return err
}
if err = addRecordResponseTiming(stack); err != nil {
    return err
}
if err = addSpanRetryLoop(stack, options); err != nil {
    return err
}
if err = addClientUserAgent(stack, options); err != nil {
    return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack);
err != nil {
    return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
    return err
}
}

```

```

if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
    return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
    return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
    return err
}
if err = addCredentialSource(stack, options); err != nil {
    return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListLicenses(options.Region), middleware.Before);
err != nil {
    return err
}
if err = addRecursionDetection(stack); err != nil {
    return err
}
if err = addRequestIDRetrieverMiddleware(stack); err != nil {
    return err
}
if err = addResponseErrorMiddleware(stack); err != nil {
    return err
}
if err = addRequestResponseLogging(stack, options); err != nil {
    return err
}
if err = addDisableHTTPSMiddleware(stack, options); err != nil {
    return err
}
if err = addSpanInitializeStart(stack);
err != nil {
    return err
}
if err = addSpanInitializeEnd(stack); err != nil {
    return err
}
if err = addSpanBuildRequestStart(stack); err != nil {
    return err
}
if err = addSpanBuildRequestEnd(stack); err != nil {
    return err
}
return nil
}

```

```

func newServiceMetadataMiddleware_opListLicenses(region string) *awsmiddleware.RegisterServiceMetadata {

```

```
return &awsmiddleware.RegisterServiceMetadata{
    Region:    region,
    ServiceID: ServiceID,
    OperationName: "ListLicenses",
}
}
DisassociateLicense
Initialize stack step
spanInitializeStart
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
spanInitializeEnd
Serialize stack step
spanBuildRequestStart
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
SetCredentialSourceMiddleware
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
spanBuildRequestEnd
Finalize stack step
spanRetryLoop
Retry
RetryMetricsHeader
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
```


CheckInLicense
Initialize stack step
spanInitializeStart
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
spanInitializeEnd
Serialize stack step
spanBuildRequestStart
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
SetCredentialSourceMiddleware
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
spanBuildRequestEnd
Finalize stack step
spanRetryLoop
Retry
RetryMetricsHeader
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
CheckoutBorrowLicense
Initialize stack step
spanInitializeStart
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger

```

OperationInputValidation
spanInitializeEnd
Serialize stack step
spanBuildRequestStart
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
SetCredentialSourceMiddleware
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
spanBuildRequestEnd
Finalize stack step
spanRetryLoop
Retry
RetryMetricsHeader
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
    "context"
    "fmt"
    awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
    "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
    "github.com/aws/smithy-go/middleware"
    smithyhttp "github.com/aws/smithy-go/transport/http"
)

```

```

// Gets detailed information about the specified license.
func (c *Client) GetLicense(ctx context.Context, params *GetLicenseInput, optFns ...func(*Options))
(*GetLicenseOutput, error) {
    if params == nil {
        params = &GetLicenseInput{}
    }

    result, metadata, err := c.invokeOperation(ctx, "GetLicense", params, optFns,
c.addOperationGetLicenseMiddlewares)
    if err != nil {
        return nil, err
    }

    out := result.(*GetLicenseOutput)
    out.ResultMetadata = metadata
    return out, nil
}

type GetLicenseInput struct {

    // Amazon Resource Name (ARN) of the license.
    //
    // This member is required.
    LicenseArn *string

    // License version.
    Version *string

    noSmithyDocumentSerde
}

type
GetLicenseOutput struct {

    // License details.
    License *types.License

    // Metadata pertaining to the operation's result.
    ResultMetadata middleware.Metadata

    noSmithyDocumentSerde
}

func (c *Client) addOperationGetLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
    if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
        return err
    }
}

```

```

err = stack.Serialize.Add(&awsAwsjson11_serializeOpGetLicense{}, middleware.After)
if err != nil {
    return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpGetLicense{}, middleware.After)
if err != nil {
    return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "GetLicense"); err != nil {
    return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addLegacyEndpointContextSetter(stack, options); err != nil {
    return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
    return err
}
if err = addClientRequestID(stack); err
!= nil {
    return err
}
if err = addComputeContentLength(stack); err != nil {
    return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
    return err
}
if err = addComputePayloadSHA256(stack); err != nil {
    return err
}
if err = addRetry(stack, options); err != nil {
    return err
}
if err = addRawResponseToMetadata(stack); err != nil {
    return err
}
if err = addRecordResponseTiming(stack); err != nil {
    return err
}
if err = addSpanRetryLoop(stack, options); err != nil {
    return err
}
if err = addClientUserAgent(stack, options); err != nil {
    return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
    return err
}

```

```

}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
    return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
    return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
    return err
}
if err = addUserAgentRetryMode(stack, options);
err != nil {
    return err
}
if err = addCredentialSource(stack, options); err != nil {
    return err
}
if err = addOpGetLicenseValidationMiddleware(stack); err != nil {
    return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opGetLicense(options.Region), middleware.Before);
err != nil {
    return err
}
if err = addRecursionDetection(stack); err != nil {
    return err
}
if err = addRequestIDRetrieverMiddleware(stack); err != nil {
    return err
}
if err = addResponseErrorMiddleware(stack); err != nil {
    return err
}
if err = addRequestResponseLogging(stack, options); err != nil {
    return err
}
if err = addDisableHTTPSMiddleware(stack, options); err != nil {
    return err
}
if err = addSpanInitializeStart(stack); err != nil {
    return err
}
if err = addSpanInitializeEnd(stack); err != nil {
    return err
}
if err = addSpanBuildRequestStart(stack); err != nil {
    return err
}
}

```

```

if err = addSpanBuildRequestEnd(stack); err != nil {
    return err
}
return
nil
}

func newServiceMetadataMiddleware_opGetLicense(region string) *awsmiddleware.RegisterServiceMetadata {
return &awsmiddleware.RegisterServiceMetadata{
    Region:    region,
    ServiceID: ServiceID,
    OperationName: "GetLicense",
}
}

```

AWS SDK for Go

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AssociateLicense

Initialize stack step

spanInitializeStart

RegisterServiceMetadata

legacyEndpointContextSetter

SetLogger

OperationInputValidation

spanInitializeEnd

Serialize stack step

spanBuildRequestStart

setOperationInput

ResolveEndpoint

OperationSerializer

Build stack step

ClientRequestID

ComputeContentLength

SetCredentialSourceMiddleware

UserAgent

AddTimeOffsetMiddleware

RecursionDetection

spanBuildRequestEnd

Finalize stack step

spanRetryLoop

Retry

RetryMetricsHeader

ResolveAuthScheme

GetIdentity

ResolveEndpointV2

disableHTTPS

ComputePayloadHash

setLegacyContextSigningOptions

```

Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
    "context"
    "fmt"
    awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
    "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
    "github.com/aws/smithy-go/middleware"
    smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license for offline use.
func (c *Client) CheckoutBorrowLicense(ctx context.Context, params *CheckoutBorrowLicenseInput, optFns
...func(*Options)) (*CheckoutBorrowLicenseOutput, error) {
    if params == nil {
        params = &CheckoutBorrowLicenseInput{}
    }

    result, metadata, err := c.invokeOperation(ctx, "CheckoutBorrowLicense", params, optFns,
c.addOperationCheckoutBorrowLicenseMiddlewares)
    if err != nil {
        return nil, err
    }

    out := result.(*CheckoutBorrowLicenseOutput)
    out.ResultMetadata = metadata
    return out, nil
}

type CheckoutBorrowLicenseInput struct {

    // Unique, case-sensitive identifier that you provide to ensure the idempotency of
    //
    the request.
    //

```

```

// This member is required.
ClientToken *string

// Digital signature method. The possible value is JSON Web Signature (JWS)
// algorithm PS384. For more information, see [RFC 7518 Digital Signature with RSASSA-PSS].
//
// [RFC 7518 Digital Signature with RSASSA-PSS]: https://tools.ietf.org/html/rfc7518#section-3.5
//
// This member is required.
DigitalSignatureMethod types.DigitalSignatureMethod

// License entitlements. Partial checkouts are not supported.
//
// This member is required.
Entitlements []types.EntitlementData

// Amazon Resource Name (ARN) of the license. The license must use the borrow
// consumption configuration.
//
// This member is required.
LicenseArn *string

// Information about constraints.
CheckoutMetadata []types.Metadata

// Node ID.
NodeId *string

noSmithyDocumentSerde
}

type CheckoutBorrowLicenseOutput struct {

// Information about constraints.
CheckoutMetadata []types.Metadata

// Allowed license entitlements.
EntitlementsAllowed
[]types.EntitlementData

// Date and time at which the license checkout expires.
Expiration *string

// Date and time at which the license checkout is issued.
IssuedAt *string

// Amazon Resource Name (ARN) of the license.
LicenseArn *string

```



```

// License consumption token.
LicenseConsumptionToken *string

// Node ID.
NodeId *string

// Signed token.
SignedToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutBorrowLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
    if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
        return err
    }
    err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutBorrowLicense{}, middleware.After)
    if err != nil {
        return err
    }
    err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutBorrowLicense{}, middleware.After)
    if err != nil {
        return
    }
    err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutBorrowLicense"); err != nil {
    return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addLegacyEndpointContextSetter(stack, options); err != nil {
    return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
    return err
}
if err = addClientRequestID(stack); err != nil {
    return err
}
if err = addComputeContentLength(stack); err != nil {
    return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
    return err
}

```

```

}
if err = addComputePayloadSHA256(stack); err != nil {
    return err
}
if err = addRetry(stack, options); err != nil {
    return err
}
if err = addRawResponseToMetadata(stack); err != nil {
    return err
}
if err = addRecordResponseTiming(stack); err != nil {
    return err
}
if err = addSpanRetryLoop(stack, options); err != nil {
    return err
}
if err = addClientUserAgent(stack, options); err != nil {
    return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack);
err != nil {
    return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
    return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
    return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
    return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
    return err
}
if err = addCredentialSource(stack, options); err != nil {
    return err
}
if err = addOpCheckoutBorrowLicenseValidationMiddleware(stack); err != nil {
    return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutBorrowLicense(options.Region),
middleware.Before); err != nil {
    return err
}
if err = addRecursionDetection(stack); err != nil {
    return err
}
}

```

```

if err = addRequestIDRetrieverMiddleware(stack); err != nil {
    return err
}
if err = addResponseErrorMiddleware(stack); err != nil {
    return err
}
if err = addRequestResponseLogging(stack, options);
err != nil {
    return err
}
if err = addDisableHTTPSMiddleware(stack, options); err != nil {
    return err
}
if err = addSpanInitializeStart(stack); err != nil {
    return err
}
if err = addSpanInitializeEnd(stack); err != nil {
    return err
}
if err = addSpanBuildRequestStart(stack); err != nil {
    return err
}
if err = addSpanBuildRequestEnd(stack); err != nil {
    return err
}
return nil
}

func newServiceMetadataMiddleware_opCheckoutBorrowLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
return &awsmiddleware.RegisterServiceMetadata{
    Region:    region,
    ServiceID: ServiceID,
    OperationName: "CheckoutBorrowLicense",
}
}
{
    "smithy": "2.0",
    "shapes": {
        "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger": {
            "type": "integer"
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong": {
            "type": "long"
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProvider": {
            "type": "operation",
            "input": {

```

```

    "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerErrorException"
    },
    {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
    },
    {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
    },
    {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Remove a third-party subscription provider from the Bring Your Own License (BYOL) subscriptions \n\t\t\tregistered to your account.</p>",
    "smithy.api#http": {
      "code": 200,
      "method": "POST",
      "uri": "/subscription/DeregisterSubscriptionProvider"
    },
    "smithy.api#idempotent": {}
  }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderRequest": {
  "type": "structure",
  "members": {
    "SubscriptionProviderArn": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
      "traits": {
        "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the subscription provider resource to deregister.</p>",
        "smithy.api#required": {}
      }
    }
  },
  "traits": {
    "smithy.api#input": {}
  }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderResponse": {

```

```

    "type": "structure",
    "members": {},
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#Filter": {
    "type": "structure",
    "members": {
        "Name": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The type of name to filter by.</p>"
            }
        },
        "Values": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
            "traits": {
                "smithy.api#documentation": "<p>One or more values for the name to filter by.</p>"
            }
        },
        "Operator": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Operator",
            "traits": {
                "smithy.api#documentation": "<p>An operator for filtering results.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>A filter object that is used to return more specific results from a describe operation.\n    Filters can be used to match a set of resources by specific criteria.</p>"
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#FilterList": {
    "type":
"list",
    "member": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Filter"
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProvider": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderRequest"
    },
    "output": {
        "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderResponse"

```

```

    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerErrorException"
      },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
      },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
      },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Get details for a Bring Your Own License (BYOL) subscription that's  
registered to your account.</p>",
      "smithy.api#http": {
        "code": 200,
        "method": "POST",
        "uri": "/subscription/GetRegisteredSubscriptionProvider"
      },
      "smithy.api#idempotent": {}
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderRequest": {
    "type": "structure",
    "members": {
      "SubscriptionProviderArn": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
        "traits": {
          "smithy.api#documentation":
            "<p>The Amazon Resource Name (ARN) of the BYOL registration resource to get details for.</p>",
          "smithy.api#required": {}
        }
      }
    },
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderResponse": {
    "type": "structure",
    "members": {
      "SubscriptionProviderArn": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
        "traits": {

```

```
"smithy.api#documentation": "<p>The Amazon Resource Name (ARN) for the BYOL registration resource specified in the request.</p>"
    },
    "SubscriptionProviderSource": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
      "traits": {
        "smithy.api#documentation": "<p>The subscription provider for the BYOL registration resource specified \n\t\t\tin the request.</p>"
      }
    },
    "SecretArn": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
      "traits": {
        "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the third-party access secret stored in Secrets Manager for the BYOL \n\t\t\tregistration resource specified in the request.</p>"
      }
    },
    "SubscriptionProviderStatus": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
      "traits": {
        "smithy.api#documentation": "<p>The status of the Linux subscription provider access token from the last \n\t\t\tsuccessful subscription data request.</p>"
      }
    },
    "SubscriptionProviderStatusMessage": {
      "target": "smithy.api#String",
      "traits": {
        "smithy.api#documentation": "<p>The detailed message from your subscription provider token status.</p>"
      }
    },
    "LastSuccessfulDataRetrievalTime": {
      "target": "smithy.api#String",
      "traits": {
        "smithy.api#documentation": "<p>The timestamp from the last time License Manager retrieved subscription details \n\t\t\tfrom your registered third-party Linux subscription provider.</p>"
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings": {
    "type": "operation",
    "input": {
```

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    "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
    },
    {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
    },
    {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Lists the Linux subscriptions service settings for your account.</p>",
    "smithy.api#http": {
      "code": 200,
      "method": "POST",
      "uri": "/subscription/GetServiceSettings"
    },
    "smithy.api#idempotent": {}
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest": {
    "type": "structure",
    "members": {}
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse": {
    "type": "structure",
    "members": {
      "LinuxSubscriptionsDiscovery": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
        "traits": {
          "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
        }
      },
      "LinuxSubscriptionsDiscoverySettings": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
        "traits": {
          "smithy.api#documentation": "<p>Lists
the settings defined for Linux subscriptions discovery. The settings include ifn    Organizations integration has
been enabled, and which Regions data will be aggregated from.</p>"
        }
      }
    }
  }

```



```

    },
    "Status": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
      "traits": {
        "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
      }
    },
    "StatusMessage": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
      "traits": {
        "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
      }
    },
    "HomeRegions": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
      "traits": {
        "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n    subscriptions.</p>"
      }
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#Instance": {
    "type": "structure",
    "members": {
      "AmiId": {
        "target": "smithy.api#String",
        "traits": {
          "smithy.api#documentation": "<p>The AMI ID used to launch the instance.</p>"
        }
      },
      "InstanceID": {
        "target": "smithy.api#String",
        "traits": {
          "smithy.api#documentation": "<p>The instance ID of the resource.</p>"
        }
      },
      "InstanceType": {
        "target": "smithy.api#String",
        "traits": {
          "smithy.api#documentation": "<p>The instance type of the resource.</p>"
        }
      },
      "AccountID": {
        "target": "smithy.api#String",

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    "traits": {
      "smithy.api#documentation": "<p>The account ID which owns the instance.</p>"
    }
  },
  "Status": {
    "target": "smithy.api#String",
    "traits": {
      "smithy.api#documentation": "<p>The status of the instance.</p>"
    }
  },
  "Region": {
    "target": "smithy.api#String",
    "traits": {
      "smithy.api#documentation": "<p>The Region the instance is running in.</p>"
    }
  },
  "UsageOperation": {
    "target": "smithy.api#String",

    "traits": {
      "smithy.api#documentation": "<p>The usage operation of the instance. For more information, see For
more information, see\n      <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-
subscriptions-usage-operation.html\">Usage\n      operation values</a> in the <i>License Manager User
Guide</i>.</p>"
    }
  },
  "ProductCode": {
    "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList",
    "traits": {
      "smithy.api#documentation": "<p>The product code for the instance. For more information, see <a
href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-
operation.html\">Usage\n      operation values</a> in the <i>License Manager User Guide</i> .</p>"
    }
  },
  "LastUpdatedTime": {
    "target": "smithy.api#String",
    "traits": {
      "smithy.api#documentation": "<p>The time in which the last discovery updated the instance
details.</p>"
    }
  },
  "SubscriptionName": {
    "target": "smithy.api#String",
    "traits": {
      "smithy.api#documentation": "<p>The name of the license subscription that the instance uses.</p>"
    }
  },
  "OsVersion": {

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        "target": "smithy.api#String",
        "traits": {
            "smithy.api#documentation": "<p>The operating system software version that runs on your
instance.</p>"
        }
    },
    "SubscriptionProviderCreateTime": {
        "target": "smithy.api#String",
        "traits": {
            "smithy.api#documentation": "<p>The timestamp when you registered
the third-party Linux subscription \n\t\t\tprovider for the subscription that the instance uses.</p>"
        }
    },
    "SubscriptionProviderUpdateTime": {
        "target": "smithy.api#String",
        "traits": {
            "smithy.api#documentation": "<p>The timestamp from the last time that the instance synced with the
registered \n\t\t\tthird-party Linux subscription provider.</p>"
        }
    },
    "DualSubscription": {
        "target": "smithy.api#String",
        "traits": {
            "smithy.api#documentation": "<p>Indicates that you have two different license subscriptions for
\n\t\t\tthe same software on your instance.</p>"
        }
    },
    "RegisteredWithSubscriptionProvider": {
        "target": "smithy.api#String",
        "traits": {
            "smithy.api#documentation": "<p>Indicates that your instance uses a BYOL license subscription from \n\t\t\tta
third-party Linux subscription provider that you've registered with License Manager.</p>"
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Details discovered information about a running instance using Linux
subscriptions.</p>"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Instance"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerError": {

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    "type": "structure",
    "members": {
        "message": {
            "target": "smithy.api#String"
        }
    },
    "traits": {
        "smithy.api#documentation":
        "<p>An exception occurred with the service.</p>",
        "smithy.api#error": "server"
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#LicenseManagerLinuxSubscriptions": {
    "type": "service",
    "version": "2018-05-10",
    "operations": [
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProvider"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProvider"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProviders"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResource"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProvider"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResource"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResource"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings"
        }
    ]
}

```

```

    }
  ],
  "traits": {
    "aws.api#service": {
      "sdkId": "License Manager Linux Subscriptions",
      "arnNamespace": "license-manager-linux-subscriptions",
      "cloudTrailEventSource": "license-manager-linux-subscriptions.amazonaws.com"
    },
    "aws.auth#sigv4": {
      "name": "license-manager-linux-subscriptions"
    },
    "aws.protocols#restJson1": {},
    "smithy.api#cors": {
      "additionalAllowedHeaders": [
        "*",
        "content-type",
        "x-amz-content-sha256",
        "x-amz-user-agent",
        "x-amzn-platform-id",
        "x-amzn-trace-id"
      ],
      "additionalExposedHeaders": [
        "x-amzn-errortype",
        "x-amzn-requestid",
        "x-amzn-trace-id"
      ]
    },
    "smithy.api#documentation": "<p>With License Manager,
you can discover and track your commercial Linux subscriptions on running Amazon EC2 instances.</p>",
    "smithy.api#title": "AWS License Manager Linux Subscriptions",
    "smithy.rules#endpointRuleSet": {
      "version": "1.0",
      "parameters": {
        "Region": {
          "builtIn": "AWS::Region",
          "required": false,
          "documentation": "The AWS region used to dispatch the request.",
          "type": "String"
        },
        "UseDualStack": {
          "builtIn": "AWS::UseDualStack",
          "required": true,
          "default": false,
          "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not
support dual-stack, dispatching the request MAY return an error.",
          "type": "Boolean"
        },
        "UseFIPS": {

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        "builtIn": "AWS::UseFIPS",
        "required": true,
        "default": false,
        "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the
configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
        "type": "Boolean"
    },
    "Endpoint": {
        "builtIn": "SDK::Endpoint",
        "required": false,
        "documentation": "Override the endpoint used to send this request",
        "type": "String"
    }
},
"rules": [
    {
        "conditions": [
            {
                "fn": "isSet",
                "argv": [
                    {
                        "ref": "Endpoint"
                    }
                ]
            }
        ]
    }
],
"rules": [
    {
        "conditions": [
            {
                "fn": "booleanEquals",
                "argv": [
                    {
                        "ref": "UseFIPS"
                    },
                    true
                ]
            }
        ]
    }
],
    "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
    "type": "error"
},
{
    "conditions": [],
    "rules": [
        {
            "conditions": [

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```

        {
            "fn": "booleanEquals",
            "argv": [
                {
                    "ref": "UseDualStack"
                },
                true
            ]
        }
    ],
    "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
    "type": "error"
},
{
    "conditions": [],
    "endpoint": {
        "url": {
            "ref": "Endpoint"
        },
        "properties": {},
        "headers": {}
    },
    "type": "endpoint"
}
],
"type": "tree"

}
],
"type": "tree"
},
{
    "conditions": [],
    "rules": [
        {
            "conditions": [
                {
                    "fn": "isSet",
                    "argv": [
                        {
                            "ref": "Region"
                        }
                    ]
                }
            ]
        }
    ],
    "rules": [
        {

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        "conditions": [
            {
                "fn": "aws.partition",
                "argv": [
                    {
                        "ref": "Region"
                    }
                ],
                "assign": "PartitionResult"
            }
        ],
        "rules": [
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            {
                                "ref": "UseFIPS"
                            },
                            true
                        ]
                    },
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            {
                                "ref": "UseDualStack"
                            },
                            true
                        ]
                    }
                ]
            }
        ],
        "rules": [
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            true,
                            {
                                "fn": "getAttr",
                                "argv": [
                                    {
                                        "ref": "PartitionResult"
                                    }
                                ]
                            }
                        ]
                    }
                ]
            }
        ]
    }
}

```



```

    },
    "supportsFIPS"
  ]
}
]
},
{
  "fn": "booleanEquals",
  "argv": [
    true,
    {
      "fn": "getAttr",
      "argv": [

        {
          "ref": "PartitionResult"
        },
        "supportsDualStack"
      ]
    }
  ]
}
],
"rules": [
  {
    "conditions": [],

"rules": [

    {
      "conditions": [],
      "endpoint": {
        "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
        "properties": {},
        "headers": {}
      },
      "type": "endpoint"
    }
  ],

  "type": "tree"
},
  "type": "tree"
},
{
  "conditions": [],

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        "error": "FIPS and DualStack are enabled, but this partition does not support
one or both",

        "type": "error"
    }
],
"type": "tree"
},
{
    "conditions": [
        {
            "fn": "booleanEquals",
            "argv": [
                {
                    "ref": "UseFIPS"
                },
                true
            ]
        }
    ],
    "rules": [
        {
            "conditions": [
                {
                    "fn": "booleanEquals",
                    "argv": [
                        {
                            "fn": "getAttr",
                            "argv": [
                                {
                                    "ref": "PartitionResult"
                                },
                                "supportsFIPS"
                            ]
                        },
                        true
                    ]
                }
            ],
            "rules": [
                {
                    "conditions": [],
                    "rules": [
                        {
                            "conditions": [],
                            "endpoint": {

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        "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",

        "properties": {},

        "headers": {}
    },
    "type": "endpoint"
}
],
"type": "tree"
}
],
"type": "tree"
},
{
    "conditions": [],
    "error": "FIPS is enabled
but this partition does not support FIPS",
    "type": "error"
}
],
"type": "tree"
},
{
    "conditions": [
        {
            "fn": "booleanEquals",
            "argv": [
                {
                    "ref": "UseDualStack"
                },
                true
            ]
        }
    ]
}
],
"rules": [
    {
        "conditions": [
            {
                "fn": "booleanEquals",
                "argv": [
                    true,
                    {
                        "fn": "getAttr",
                        "argv": [
                            {

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        },
        "type": "endpoint"
    }
],
    "type": "tree"
}
],
    "type": "tree"
}
],
    "type": "tree"
},
{
    "conditions": [],
    "error": "Invalid Configuration: Missing Region",
    "type": "error"
}
],
    "type": "tree"
}
]
},
"smithy.rules#endpointTests": {
    "testCases": [
        {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-linux-subscriptions-fips.us-east-1.api.aws"
                }
            }
        },
        {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-linux-subscriptions-fips.us-east-1.amazonaws.com"
                }
            }
        },
        {
            "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-linux-subscriptions.us-east-1.api.aws"
                }
            }
        }
    ]
}

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        "UseDualStack": false
    }
},
{
    "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-linux-subscriptions.us-east-1.api.aws"
        }
    },
    "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": true
    }
},
{
    "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-linux-subscriptions.us-east-1.amazonaws.com"
        }
    },
    "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-linux-subscriptions-fips.cn-north-
1.api.amazonaws.com.cn"
        }
    },
    "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": true
    }
},
{

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```

"documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.amazonaws.com.cn"
    }
  },
  "params": {
    "Region": "cn-north-1",
    "UseFIPS": true,
    "UseDualStack": false
  }
},
{
  "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager-linux-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
    }
  },
  "params": {
    "Region": "cn-north-1",
    "UseFIPS": false,
    "UseDualStack": true
  }
},
{
  "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager-linux-subscriptions.cn-north-1.amazonaws.com.cn"
    }
  },
  "params": {
    "Region": "cn-north-1",
    "UseFIPS": false,
    "UseDualStack": false
  }
},
{
  "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.api.aws"
    }
  },
  "params": {
    "Region": "us-gov-east-1",

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        "UseFIPS": true,
        "UseDualStack": true
    }
},
{
    "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.amazonaws.com"
        }
    },
    "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": true,
        "UseDualStack": false
    }
},
{
    "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-linux-subscriptions.us-gov-east-1.api.aws"
        }
    },
    "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": true
    }
},
{
    "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-linux-subscriptions.us-gov-east-1.amazonaws.com"
        }
    },
    "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
    "expect": {

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        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
    },
    "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": true,
        "UseDualStack": true
    }
},
{
    "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-linux-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
        }
    },
    "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": true,
        "UseDualStack": false
    }
},
{
    "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack
enabled",
    "expect": {
        "error": "DualStack is enabled but this partition does not support DualStack"
    },
    "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": true
    }
},
{
    "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-linux-subscriptions.us-iso-east-1.c2s.ic.gov"
        }
    },
    "params": {
        "Region": "us-iso-east-1",
        "UseFIPS":
false,
        "UseDualStack": false
    }
},

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```

{
  "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
  "expect": {
    "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
  },
  "params": {
    "Region": "us-isob-east-1",
    "UseFIPS": true,
    "UseDualStack": true
  }
},
{
  "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager-linux-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
    }
  },
  "params": {
    "Region": "us-isob-east-1",
    "UseFIPS": true,
    "UseDualStack": false
  }
},
{
  "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
  "expect": {
    "error": "DualStack is enabled but this partition does not support DualStack"
  },
  "params": {
    "Region": "us-isob-east-1",
    "UseFIPS": false,
    "UseDualStack": true
  }
},
{
  "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager-linux-subscriptions.us-isob-east-1.sc2s.sgov.gov"
    }
  },
  "params": {
    "Region": "us-isob-east-1",
    "UseFIPS": false,
    "UseDualStack": false
  }
}

```

```

    },
    {
      "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
    },
    {
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with fips enabled and dualstack disabled",
      "expect": {
        "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": true,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with fips disabled and dualstack enabled",
      "expect": {
        "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
      },
    },

```

```

    "params": {
      "Region": "us-east-1",
      "UseFIPS": false,
      "UseDualStack": true,
      "Endpoint": "https://example.com"
    },
    {
      "documentation": "Missing region",
      "expect": {
        "error": "Invalid Configuration: Missing Region"
      }
    }
  ],
  "version": "1.0"
}
},
"com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery": {
  "type": "string",
  "traits": {
    "smithy.api#enum": [
      {
        "name": "Enabled",
        "value": "Enabled",
        "documentation": "Enabled LinuxSubscriptionsDiscovery"
      },
      {
        "name": "Disabled",
        "value": "Disabled",
        "documentation": "Disabled LinuxSubscriptionsDiscovery"
      }
    ]
  }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings": {
  "type": "structure",
  "members": {
    "SourceRegions": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
      "traits": {
        "smithy.api#documentation": "<p>The Regions in which to discover data for Linux
subscriptions.</p>",
        "smithy.api#required": {}
      }
    }
  },

```

```

    "OrganizationIntegration": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration",
      "traits": {
        "smithy.api#documentation":
"<p>Details if you have enabled resource discovery across your accounts in Organizations.</p>",
        "smithy.api#required": {}
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>Lists the settings defined for discovering Linux subscriptions.</p>"
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
      }
    ]
  },
  {
    "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
  },
  {
    "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
  }
],
"traits": {
  "smithy.api#documentation": "<p>Lists the running Amazon EC2 instances that were discovered with
commercial Linux\n  subscriptions.</p>",
  "smithy.api#http": {
    "code": 200,
    "method": "POST",
    "uri": "/subscription/ListLinuxSubscriptionInstances"
  },
  "smithy.api#idempotent": {},
  "smithy.api#paginated": {
    "inputToken": "NextToken",
    "outputToken": "NextToken",
    "pageSize": "MaxResults",
    "items": "Instances"
  }
}

```

```

    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest":
  {
    "type": "structure",
    "members": {
      "Filters": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
        "traits": {
          "smithy.api#documentation": "<p>An array of structures that you can use to filter the results by your
specified criteria. \n \tFor example, you can specify <code>Region</code> in the <code>Name</code>, with the
\n \t<code>contains</code> operator to list all subscriptions that match a partial string in the \n
\n \t<code>Value</code>, such as <code>us-west</code>.</p>\n      <p>For each filter, you can specify one of the
following values for the <code>Name</code> key \n \tto streamline results:</p>\n      <ul>\n          <li>\n
<p>\n          <code>AccountID</code>\n          </p>\n          </li>\n          <li>\n
<p>\n          <code>AmiID</code>\n          </p>\n          </li>\n          <li>\n
<p>\n          <code>DualSubscription</code>\n          </p>\n          </li>\n          <li>\n
<p>\n          <code>InstanceID</code>\n          </p>\n          </li>\n          <li>\n
<p>\n          <code>InstanceType</code>\n          </p>\n          </li>\n          <li>\n
<p>\n          <code>ProductCode</code>\n          </p>\n          </li>\n          <li>\n
<p>\n          <code>Region</code>\n          </p>\n          </li>\n          <li>\n
<p>\n          <code>Status</code>\n          </p>\n          </li>\n          <li>\n
<p>\n          <code>UsageOperation</code>\n          </p>\n          </li>\n        </ul>\n      <p>For each filter, you can use
one of the following <code>Operator</code>
values to \n \tdefine the behavior of the filter:</p>\n      <ul>\n          <li>\n
<p>\n          <code>contains</code>\n          </p>\n          </li>\n          <li>\n
<p>\n          <code>equals</code>\n          </p>\n          </li>\n          <li>\n
<p>\n          <code>Notequal</code>\n          </p>\n          </li>\n        </ul>"
        }
      },
    },
    "MaxResults": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
      "traits": {
        "smithy.api#documentation": "<p>The maximum items to return in a request.</p>"
      }
    },
    "NextToken": {
      "target": "smithy.api#String",
      "traits": {
        "smithy.api#documentation": "<p>A token to specify where to
start paginating. This \n\tis the nextToken from a previously truncated response.</p>",
        "smithy.api#length": {
          "min": 1,
          "max": 16384
        }
      }
    }
  },
},

```

```

    "traits": {
      "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if
parameters in request increases."
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse": {
    "type": "structure",
    "members": {
      "Instances": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList",
        "traits": {
          "smithy.api#documentation": "<p>An array that contains instance objects.</p>"
        }
      },
      "NextToken": {
        "target": "smithy.api#String",
        "traits": {
          "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield
isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the
next request to retrieve \n\tadditional objects.</p>"
        }
      }
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
      },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
      },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Lists the Linux subscriptions that have been discovered. If you have
linked your\n\torganization, the returned results will include data aggregated across your accounts in\n
Organizations.</p>",

```

```

"smithy.api#http": {
  "code": 200,
  "method": "POST",
  "uri": "/subscription/ListLinuxSubscriptions"
},
"smithy.api#idempotent": {},
"smithy.api#paginated": {
  "inputToken": "NextToken",
  "outputToken": "NextToken",
  "pageSize": "MaxResults",

"items": "Subscriptions"
}
},
"com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest": {
  "type": "structure",
  "members": {
    "Filters": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
      "traits": {
        "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n    more sets of key-value pairs that you specify. For example, you can filter by the name of\n
<code>Subscription</code> with an optional operator to see subscriptions that match,\n    partially match, or don't
match a certain subscription's name.</p>\n    <p>The valid names for this filter are:</p>\n    <ul>\n
<li>\n        <p>\n            <code>Subscription</code>\n        </p>\n        </li>\n    </ul>\n
<p>The
valid Operators for this filter are:</p>\n    <ul>\n        <li>\n            <p>\n
<code>contains</code>\n        </p>\n        </li>\n        <li>\n            <p>\n
<code>>equals</code>\n        </p>\n        </li>\n        <li>\n            <p>\n
<code>Notequal</code>\n        </p>\n        </li>\n    </ul>"
      }
    },
    "MaxResults": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
      "traits": {
        "smithy.api#documentation": "<p>The maximum items to return in a request.</p>"
      }
    },
    "NextToken": {
      "target": "smithy.api#String",
      "traits": {
        "smithy.api#documentation": "<p>A token to specify where to start paginating. This \n\tis
the nextToken from a previously truncated response.</p>",
        "smithy.api#length": {
          "min": 1,
          "max": 16384
        }
      }
    }
  }
}

```



```

    }
  }
},
"traits": {
  "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if
parameters in request increases."
}
},
"com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse": {
  "type": "structure",
  "members": {
    "Subscriptions": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList",
      "traits": {
        "smithy.api#documentation": "<p>An array that contains subscription objects.</p>"
      }
    },
    "NextToken": {
      "target": "smithy.api#String",
      "traits": {
        "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\field
isn't empty, there are additional elements that the service hasn't \n\included in this request. Use this token with the
next request to retrieve \n\additional objects.</p>"
      }
    }
  }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProviders": {
  "type": "operation",
  "input": {
    "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersRequest"
  },
  "output": {
    "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
    },
    {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
    },
    {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
    }
  ]
}

```

```

    ],
    "traits": {
      "smithy.api#documentation": "<p>List Bring Your Own License (BYOL) subscription registration
resources for your account.</p>",
      "smithy.api#http": {
        "code": 200,
        "method": "POST",
        "uri": "/subscription/ListRegisteredSubscriptionProviders"
      },
      "smithy.api#idempotent": {},
      "smithy.api#paginated": {
        "inputToken": "NextToken",
        "outputToken": "NextToken",
        "pageSize": "MaxResults",
        "items": "RegisteredSubscriptionProviders"
      }
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersRequest": {
    "type": "structure",
    "members": {
      "SubscriptionProviderSources": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSourceList",
        "traits": {
          "smithy.api#documentation": "<p>To filter your results, specify which subscription providers to
return \n\t\t\t\t\tin the list.</p>"
        }
      },
      "MaxResults": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
        "traits": {
          "smithy.api#documentation": "<p>The maximum items to return in a request.</p>",
          "smithy.api#range": {
            "min": 1,
            "max": 100
          }
        }
      }
    }
  },
  "NextToken": {
    "target": "smithy.api#String",
    "traits": {
      "smithy.api#documentation": "<p>A token to specify where to start paginating. This \n\t\t\t\t\tis the
nextToken from a previously truncated response.</p>"
    }
  }
},

```



```

        "documentation": "Equal operator"
    },
    {
        "name": "NOT_EQUAL",
        "value": "NotEqual",
        "documentation": "Not equal operator"
    },
    {
        "name": "CONTAINS",
        "value": "Contains",
        "documentation": "Contains operator"
    }
],
"smithy.api#length": {
    "min": 1,
    "max": 20
}
},
"com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration":
{
    "type": "string",
    "traits": {
        "smithy.api#enum": [
            {
                "name": "Enabled",
                "value": "Enabled",
                "documentation": "Enabled OrganizationIntegration"
            },
            {
                "name": "Disabled",
                "value": "Disabled",
                "documentation": "Disabled OrganizationIntegration"
            }
        ]
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList": {
    "type": "list",
    "member": {
        "target": "smithy.api#String"
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProvider": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderRequest"
    }
}

```



```

        "traits": {
            "smithy.api#documentation": "<p>The metadata tags to assign to your registered Linux subscription
provider \n\t\t\tresource.</p>"
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderResponse": {
    "type": "structure",
    "members": {
        "SubscriptionProviderSource": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
            "traits": {
                "smithy.api#documentation":
"<p>The Linux subscription provider that you registered.</p>"
            }
        },
        "SubscriptionProviderArn": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Linux subscription
provider resource that you registered.</p>"
            }
        },
        "SubscriptionProviderStatus": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
            "traits": {
                "smithy.api#documentation": "<p>Indicates the status of the registration action for the Linux
subscription provider \n\t\t\t\tthat you requested.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProvider":
{
    "type": "structure",
    "members": {
        "SubscriptionProviderArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
            "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Linux subscription
provider resource that you registered.</p>"
            }
        }
    }
}

```

```

    }
  },
  "SubscriptionProviderSource": {
    "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
    "traits": {
      "smithy.api#documentation": "<p>A supported third-party Linux subscription provider. License Manager currently supports \n\t\t\tRed Hat subscriptions.</p>"
    }
  },
  "SecretArn": {
    "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
    "traits": {
      "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Secrets Manager secret that stores your registered Linux subscription provider \n\t\t\taccess token. For RHEL account subscriptions, this is the offline token.</p>"
    }
  },
  "SubscriptionProviderStatus": {
    "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
    "traits": {
      "smithy.api#documentation": "<p>Indicates the status of your registered Linux subscription provider access token \n\t\t\tfrom the last time License Manager retrieved subscription data. For RHEL account subscriptions, \n\t\t\tthis is the status of the offline token.</p>"
    }
  },
  "SubscriptionProviderStatusMessage": {
    "target": "smithy.api#String",
    "traits": {
      "smithy.api#documentation": "<p>A detailed message that's associated with your BYOL subscription \n\t\t\tprovider token status.</p>"
    }
  },
  "LastSuccessfulDataRetrievalTime": {
    "target": "smithy.api#String",
    "traits": {
      "smithy.api#documentation": "<p>The timestamp from the last time that License Manager accessed third-party subscription data \n\t\t\tfor your account from your registered Linux subscription provider.</p>"
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>A third-party provider for operating system (OS) platform software and license \n\t\t\tsubscriptions, such as Red Hat. When you register a third-party Linux subscription \n\t\t\tprovider, License Manager can get subscription data from the registered provider.</p>"
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProviderList":

```



```

{
  "type": "list",
  "member": {
    "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProvider"
  }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException": {
  "type": "structure",
  "members": {
    "message": {
      "target": "smithy.api#String"
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Unable to find the requested Amazon Web Services resource.</p>",
    "smithy.api#error": "client"
  }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn": {
  "type": "string",
  "traits": {
    "smithy.api#pattern": "^arn:[a-z0-9-\\.]{1,63}:secretsmanager:[a-z0-9-\\.]{0,63}:secret:[^/]{1,1023}$"
  }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#Status": {
  "type": "string",
  "traits": {
    "smithy.api#enum": [
      {
        "name": "InProgress",
        "value": "InProgress",
        "documentation": "InProgress status"
      },
      {
        "name": "Completed",
        "value": "Completed",
        "documentation": "Completed status"
      },
      {
        "name": "Successful",
        "value": "Successful",
        "documentation": "Successful status"
      },
      {
        "name": "Failed",
        "value": "Failed",

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        "documentation": "Failed status"
    }
}
},
"com.amazonaws.licensemanagerlinuxsubscriptions#StringList": {
    "type": "list",
    "member": {
        "target": "smithy.api#String",
        "traits": {
            "smithy.api#length": {
                "min": 1,
                "max": 100
            }
        }
    },
    "traits": {
        "smithy.api#length": {
            "min": 1,
            "max": 100
        },
        "smithy.api#uniqueItems": {}
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#StringMap": {
    "type": "map",
    "key": {
        "target": "smithy.api#String"
    },
    "value": {
        "target": "smithy.api#String"
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#Subscription": {
    "type": "structure",
    "members": {
        "Name": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The name of the subscription.</p>"
            }
        },
        "Type": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The type of subscription. The type can be subscription-included"
            }
        }
    }
}

```



```

    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus": {
      "type": "string",
      "traits": {
        "smithy.api#enum": [
          {
            "name": "ACTIVE",
            "value": "ACTIVE",
            "documentation": "ACTIVE status"
          },
          {
            "name": "INVALID",
            "value": "INVALID",
            "documentation": "INVALID status"
          }
        ]
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#TagKeyList": {
      "type": "list",
      "member": {
        "target": "smithy.api#String"
      },
      "traits": {
        "smithy.api#length": {
          "min": 0,
          "max": 50
        },
        "smithy.api#sensitive": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#TagResource": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        }
      ]
    }
  }
}

```



```

    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#Tags": {
    "type": "map",
    "key": {
      "target": "smithy.api#String"
    },
    "value": {
      "target": "smithy.api#String"
    },
    "traits": {
      "smithy.api#length": {
        "min": 0,
        "max": 50
      },
      "smithy.api#sensitive": {}
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException": {
    "type": "structure",
    "members": {
      "message": {
        "target": "smithy.api#String"
      }
    },
    "traits": {
      "smithy.api#documentation":
        "<p>The request was denied due to request throttling.</p>",
      "smithy.api#error": "client"
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResource": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerErrorException"
      },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
      }
    ]
  }
}

```

```

    ],
    "traits": {
      "smithy.api#documentation": "<p>Remove one or more metadata tag from the specified Amazon Web
Services resource.</p>",
      "smithy.api#http": {
        "method": "DELETE",
        "uri": "/tags/{resourceArn}"
      },
      "smithy.api#idempotent": {}
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceRequest": {
    "type": "structure",
    "members": {
      "resourceArn": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
        "traits": {
          "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Amazon Web Services
resource to remove the metadata tags from.</p>",
          "smithy.api#httpLabel": {},
          "smithy.api#required": {}
        }
      },
      "tagKeys": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagKeyList",
        "traits": {
          "smithy.api#documentation": "<p>A list of metadata tag keys to remove from the requested
resource.</p>",
          "smithy.api#httpQuery": "tagKeys",
          "smithy.api#required": {}
        }
      }
    },
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceResponse": {
    "type": "structure",
    "members": {},
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings": {
    "type": "operation",
    "input": {

```

```

    "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
    },
    {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
    },
    {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Updates the service settings for Linux subscriptions.</p>",
    "smithy.api#http": {
      "code": 200,
      "method": "POST",
      "uri": "/subscription/UpdateServiceSettings"
    },
    "smithy.api#idempotent": {}
  }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest": {
  "type": "structure",
  "members": {
    "LinuxSubscriptionsDiscovery": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
      "traits": {
        "smithy.api#documentation": "<p>Describes if the discovery of Linux subscriptions is enabled.</p>",
        "smithy.api#required": {}
      }
    },
    "LinuxSubscriptionsDiscoverySettings": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
      "traits": {
        "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The settings include if Organizations\n    integration has been enabled, and which Regions data will be aggregated from.</p>",
        "smithy.api#required": {}
      }
    },
    "AllowUpdate": {
      "target":

```



```

"smithy.api#Boolean",
  "traits": {
    "smithy.api#documentation": "<p>Describes if updates are allowed to the service settings for Linux
subscriptions. If you\n    allow updates, you can aggregate Linux subscription data in more than one home
Region.</p>"
  }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse": {
  "type": "structure",
  "members": {
    "LinuxSubscriptionsDiscovery": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
      "traits": {
        "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
      }
    },
    "LinuxSubscriptionsDiscoverySettings": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
      "traits": {
        "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n    integration has been enabled, and which Regions data will be aggregated
from.</p>"
      }
    },
    "Status": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
      "traits": {
        "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
      }
    },
    "StatusMessage": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
      "traits": {
        "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
      }
    }
  },
  "HomeRegions": {
    "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
    "traits": {
      "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n    subscriptions.</p>"
    }
  }
}

```

```

    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException": {
    "type": "structure",
    "members": {
      "message": {
        "target": "smithy.api#String"
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",
      "smithy.api#error": "client"
    }
  }
}
}
// Code generated by smithy-go-codegen DO NOT EDIT.

```

```
package grafana
```

```

import (
    "context"
    "fmt"
    awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
    "github.com/aws/aws-sdk-go-v2/service/grafana/types"
    "github.com/aws/smithy-go/middleware"
    smithyhttp "github.com/aws/smithy-go/transport/http"
)

```

```

// Assigns a Grafana Enterprise license to a workspace. To upgrade, you must use
// ENTERPRISE for the licenseType , and pass in a valid Grafana Labs token for the
// grafanaToken . Upgrading to Grafana Enterprise incurs additional fees. For more
// information, see [Upgrade a workspace to Grafana Enterprise].
//
// [Upgrade a workspace to Grafana Enterprise]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-Grafana-Enterprise.html
func (c *Client) AssociateLicense(ctx context.Context, params *AssociateLicenseInput, optFns ...func(*Options))
(*AssociateLicenseOutput, error) {
    if params == nil {
        params = &AssociateLicenseInput{}
    }

    result, metadata, err := c.invokeOperation(ctx,
        "AssociateLicense", params, optFns, c.addOperationAssociateLicenseMiddlewares)
    if err != nil {
        return nil, err
    }
}

```

```

    out := result.(*AssociateLicenseOutput)
    out.ResultMetadata = metadata
    return out, nil
}

type AssociateLicenseInput struct {

    // The type of license to associate with the workspace.
    //
    // Amazon Managed Grafana workspaces no longer support Grafana Enterprise free
    // trials.
    //
    // This member is required.
    LicenseType types.LicenseType

    // The ID of the workspace to associate the license with.
    //
    // This member is required.
    WorkspaceId *string

    // A token from Grafana Labs that ties your Amazon Web Services account with a
    // Grafana Labs account. For more information, see [Link your account with Grafana Labs].
    //
    // [Link your account with Grafana Labs]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-Grafana-Enterprise.html#AMG-workspace-register-enterprise
    GrafanaToken *string

    noSmithyDocumentSerde
}

type AssociateLicenseOutput
struct {

    // A structure containing data about the workspace.
    //
    // This member is required.
    Workspace *types.WorkspaceDescription

    // Metadata pertaining to the operation's result.
    ResultMetadata middleware.Metadata

    noSmithyDocumentSerde
}

func (c *Client) addOperationAssociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
    if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
        return err
    }
}

```

```

err = stack.Serialize.Add(&awsRestjson1_serializeOpAssociateLicense{}, middleware.After)
if err != nil {
    return err
}
err = stack.Deserialize.Add(&awsRestjson1_deserializeOpAssociateLicense{}, middleware.After)
if err != nil {
    return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "AssociateLicense"); err != nil {
    return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addLegacyEndpointContextSetter(stack, options); err != nil {
    return err
}
if err = addSetLoggerMiddleware(stack,
options); err != nil {
    return err
}
if err = addClientRequestID(stack); err != nil {
    return err
}
if err = addComputeContentLength(stack); err != nil {
    return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
    return err
}
if err = addComputePayloadSHA256(stack); err != nil {
    return err
}
if err = addRetry(stack, options); err != nil {
    return err
}
if err = addRawResponseToMetadata(stack); err != nil {
    return err
}
if err = addRecordResponseTiming(stack); err != nil {
    return err
}
if err = addSpanRetryLoop(stack, options); err != nil {
    return err
}
if err = addClientUserAgent(stack, options); err != nil {
    return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
    return err
}

```

```

}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
    return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
    return err
}
if err = addTimeOffsetBuild(stack,
c); err != nil {
    return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
    return err
}
if err = addCredentialSource(stack, options); err != nil {
    return err
}
if err = addOpAssociateLicenseValidationMiddleware(stack); err != nil {
    return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opAssociateLicense(options.Region),
middleware.Before); err != nil {
    return err
}
if err = addRecursionDetection(stack); err != nil {
    return err
}
if err = addRequestIDRetrieverMiddleware(stack); err != nil {
    return err
}
if err = addResponseErrorMiddleware(stack); err != nil {
    return err
}
if err = addRequestResponseLogging(stack, options); err != nil {
    return err
}
if err = addDisableHTTPSMiddleware(stack, options); err != nil {
    return err
}
if err = addSpanInitializeStart(stack); err != nil {
    return err
}
if err = addSpanInitializeEnd(stack); err != nil {
    return err
}
if err = addSpanBuildRequestStart(stack);
err != nil {
    return err
}

```

```

    }
    if err = addSpanBuildRequestEnd(stack); err != nil {
        return err
    }
    return nil
}

func newServiceMetadataMiddleware_opAssociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
    return &awsmiddleware.RegisterServiceMetadata{
        Region:    region,
        ServiceID: ServiceID,
        OperationName: "AssociateLicense",
    }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
    "context"
    "fmt"
    awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
    "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
    "github.com/aws/smithy-go/middleware"
    smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license.
//
// If the account that created the license is the same that is performing the
// check out, you must specify the account as the beneficiary.
func (c *Client) CheckoutLicense(ctx context.Context, params *CheckoutLicenseInput, optFns ...func(*Options))
(*CheckoutLicenseOutput, error) {
    if params == nil {
        params = &CheckoutLicenseInput{}
    }

    result, metadata, err := c.invokeOperation(ctx, "CheckoutLicense", params, optFns,
c.addOperationCheckoutLicenseMiddlewares)
    if err != nil {
        return nil, err
    }

    out := result.(*CheckoutLicenseOutput)
    out.ResultMetadata = metadata
    return out, nil
}

```

```

type CheckoutLicenseInput struct {

    //
    Checkout type.
    //
    // This member is required.
    CheckoutType types.CheckoutType

    // Unique, case-sensitive identifier that you provide to ensure the idempotency of
    // the request.
    //
    // This member is required.
    ClientToken *string

    // License entitlements.
    //
    // This member is required.
    Entitlements []types.EntitlementData

    // Key fingerprint identifying the license.
    //
    // This member is required.
    KeyFingerprint *string

    // Product SKU.
    //
    // This member is required.
    ProductSKU *string

    // License beneficiary.
    Beneficiary *string

    // Node ID.
    NodeId *string

    noSmithyDocumentSerde
}

type CheckoutLicenseOutput struct {

    // Checkout type.
    CheckoutType types.CheckoutType

    // Allowed license entitlements.
    EntitlementsAllowed []types.EntitlementData

    // Date and time at which the license checkout expires.

```

Expiration *string

// Date and time at which the license checkout is issued.

IssuedAt *string

// Amazon Resource Name (ARN) of the checkout license.

LicenseArn

*string

// License consumption token.

LicenseConsumptionToken *string

// Node ID.

NodeId *string

// Signed token.

SignedToken *string

// Metadata pertaining to the operation's result.

ResultMetadata middleware.Metadata

noSmithyDocumentSerde

}

```
func (c *Client) addOperationCheckoutLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
```

```
if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
```

```
    return err
```

```
}
```

```
err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutLicense{}, middleware.After)
```

```
if err != nil {
```

```
    return err
```

```
}
```

```
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutLicense{}, middleware.After)
```

```
if err != nil {
```

```
    return err
```

```
}
```

```
if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutLicense"); err != nil {
```

```
    return fmt.Errorf("add protocol finalizers: %v", err)
```

```
}
```

```
if err = addLegacyEndpointContextSetter(stack, options); err != nil {
```

```
    return err
```

```
}
```

```
if err = addSetLoggerMiddleware(stack,
```

```
options); err != nil {
```

```
    return err
```

```
}
```

```
if err = addClientRequestID(stack); err != nil {
```



```

return err
}
if err = addComputeContentLength(stack); err != nil {
return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
return err
}
if err = addComputePayloadSHA256(stack); err != nil {
return err
}
if err = addRetry(stack, options); err != nil {
return err
}
if err = addRawResponseToMetadata(stack); err != nil {
return err
}
if err = addRecordResponseTiming(stack); err != nil {
return err
}
if err = addSpanRetryLoop(stack, options); err != nil {
return err
}
if err = addClientUserAgent(stack, options); err != nil {
return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
return err
}
if err = addTimeOffsetBuild(stack,
c); err != nil {
return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
return err
}
if err = addCredentialSource(stack, options); err != nil {
return err
}
if err = addOpCheckoutLicenseValidationMiddleware(stack); err != nil {
return err
}
}

```

```

if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutLicense(options.Region),
middleware.Before); err != nil {
    return err
}
if err = addRecursionDetection(stack); err != nil {
    return err
}
if err = addRequestIDRetrieverMiddleware(stack); err != nil {
    return err
}
if err = addResponseErrorMiddleware(stack); err != nil {
    return err
}
if err = addRequestResponseLogging(stack, options); err != nil {
    return err
}
if err = addDisableHTTPSMiddleware(stack, options); err != nil {
    return err
}
if err = addSpanInitializeStart(stack); err != nil {
    return err
}
if err = addSpanInitializeEnd(stack); err != nil {
    return err
}
if err = addSpanBuildRequestStart(stack);
err != nil {
    return err
}
if err = addSpanBuildRequestEnd(stack); err != nil {
    return err
}
return nil
}

func newServiceMetadataMiddleware_opCheckoutLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
    return &awsmiddleware.RegisterServiceMetadata{
        Region:    region,
        ServiceID: ServiceID,
        OperationName: "CheckoutLicense",
    }
}
CreateLicense
Initialize stack step
spanInitializeStart
RegisterServiceMetadata
legacyEndpointContextSetter

```

SetLogger
OperationInputValidation
spanInitializeEnd
Serialize stack step
spanBuildRequestStart
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
SetCredentialSourceMiddleware
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
spanBuildRequestEnd
Finalize stack step
spanRetryLoop
Retry
RetryMetricsHeader
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
GetLicense
Initialize stack step
spanInitializeStart
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
spanInitializeEnd
Serialize stack step
spanBuildRequestStart
setOperationInput

ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
SetCredentialSourceMiddleware
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
spanBuildRequestEnd
Finalize stack step
spanRetryLoop
Retry
RetryMetricsHeader
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger

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```
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licenseanagerusersubscriptions#AccessDeniedException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>You don't have sufficient access to perform this action.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licenseanagerusersubscriptions#ActiveDirectoryIdentityProvider": {
      "type": "structure",
      "members": {
        "DirectoryId": {
          "target": "com.amazonaws.licenseanagerusersubscriptions#Directory",
          "traits": {
            "smithy.api#documentation": "<p>The directory ID for an Active Directory identity provider.</p>"
          }
        }
      },
      "ActiveDirectorySettings": {
        {
          "target": "com.amazonaws.licenseanagerusersubscriptions#ActiveDirectorySettings",
          "traits": {
            "smithy.api#documentation": "<p>The <code>ActiveDirectorySettings</code> resource contains details about \n\t\t\tthe Active Directory, including network access details such as domain name and IP \n\t\t\taddresses, and the credential provider for user administration.</p>"
          }
        },
        "ActiveDirectoryType": {
          "target": "com.amazonaws.licenseanagerusersubscriptions#ActiveDirectoryType",
          "traits": {
            "smithy.api#documentation": "<p>The type of Active Directory either a self-managed Active
```

```

Directory or an \n\t\t\tAmazon Web Services Managed Active Directory.</p>"
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Details about an Active Directory identity
provider.</p>"
  },
  "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectorySettings": {
    "type": "structure",
    "members": {
      "DomainName": {
        "target": "smithy.api#String",
        "traits": {
          "smithy.api#documentation": "<p>The domain name for the Active Directory.</p>"
        }
      },
      "DomainIpv4List": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#Ipv4List",
        "traits": {
          "smithy.api#documentation": "<p>A list of domain IPv4 addresses that are used for the Active
Directory.</p>",
          "smithy.api#length": {
            "min": 1,
            "max": 2
          }
        }
      },
      "DomainCredentialsProvider": {
        "target":
"com.amazonaws.licensemanagerusersubscriptions#CredentialsProvider",
        "traits": {
          "smithy.api#documentation": "<p>Points to the <code>CredentialsProvider</code> resource that
contains \n\t\t\tinformation about the credential provider for user administration.</p>"
        }
      },
      "DomainNetworkSettings": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#DomainNetworkSettings",
        "traits": {
          "smithy.api#documentation": "<p>The <code>DomainNetworkSettings</code> resource contains an
array of \n\t\t\tsubnets that apply for the Active Directory.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>Contains network access and credential details that are needed for
\n\t\t\tuser administration in the Active Directory.</p>"
    }
  }
}

```

```

    }
  },
  "com.amazonaws.licenseanagerusersubscriptions#ActiveDirectoryType":
{
  "type": "string",
  "traits": {
    "smithy.api#enum": [
      {
        "name": "SELF_MANAGED",
        "value": "SELF_MANAGED",
        "documentation": "SELF_MANAGED type of Active Directory"
      },
      {
        "name": "AWS_MANAGED",
        "value": "AWS_MANAGED",
        "documentation": "AWS_MANAGED type of Active Directory"
      }
    ]
  }
},
  "com.amazonaws.licenseanagerusersubscriptions#Arn": {
    "type": "string",
    "traits": {
      "smithy.api#pattern": "^arn:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-zA-Z0-9-\\.]{1,510}/[a-zA-Z0-9-\\.]{1,510}$"
    }
  },
  "com.amazonaws.licenseanagerusersubscriptions#AssociateUser":
{
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#AssociateUserRequest"
  },
  "output": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#AssociateUserResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licenseanagerusersubscriptions#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licenseanagerusersubscriptions#ConflictException"
    },
    {
      "target": "com.amazonaws.licenseanagerusersubscriptions#InternalServerErrorException"
    },
    {
      "target": "com.amazonaws.licenseanagerusersubscriptions#ResourceNotFoundException"
    }
  ]
}

```



```

        "smithy.api#documentation": "<p>The identity provider for the user.</p>",
        "smithy.api#required": {}
    },
    "Domain": {
        "target": "smithy.api#String",
        "traits": {
            "smithy.api#documentation": "<p>The domain name of the Active Directory that contains
information for the user to associate.</p>"
        }
    },
    "Tags": {
        "target": "com.amazonaws.licenseanagerusersubscriptions#Tags",
        "traits": {
            "smithy.api#documentation": "<p>The tags that apply for the user association.</p>"
        }
    }
},
"traits": {

"smithy.api#input": {}
},
"com.amazonaws.licenseanagerusersubscriptions#AssociateUserResponse": {
    "type": "structure",
    "members": {
        "InstanceUserSummary": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#InstanceUserSummary",
            "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
                "smithy.api#required": {}
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licenseanagerusersubscriptions#BoxInteger": {
    "type": "integer"
},
"com.amazonaws.licenseanagerusersubscriptions#ConflictException": {
    "type": "structure",
    "members": {
        "message": {
            "target": "smithy.api#String"
        }
    },

```

```

    "traits": {
      "smithy.api#documentation": "<p>The request couldn't be completed because it conflicted with the current
state of the\n\t\t\t\tresource.</p>",
      "smithy.api#error": "server"
    }
  },
  "com.amazonaws.licenseanagerusersubscriptions#CreateLicenseServerEndpoint": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#CreateLicenseServerEndpointRequest"
    },
    "output": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#CreateLicenseServerEndpointResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ConflictException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#InternalServerError"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ResourceNotFoundException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ServiceQuotaExceededException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ThrottlingException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ValidationException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Creates a network endpoint for the Remote Desktop Services (RDS)
license server.</p>",
      "smithy.api#http": {
        "code": 200,
        "method": "POST",
        "uri": "/license-server/CreateLicenseServerEndpoint"
      },
      "smithy.api#idempotent": {}
    }
  }
}

```



```

        "smithy.api#documentation": "<p>The ARN of the <code>LicenseServerEndpoint</code>
resource.</p>"
    }
}
},
"traits": {
    "smithy.api#output": {}
}
},
"com.amazonaws.licensemanagerusersubscriptions#CredentialsProvider": {
    "type": "union",
    "members": {
        "SecretsManagerCredentialsProvider":
{
            "target": "com.amazonaws.licensemanagerusersubscriptions#SecretsManagerCredentialsProvider",
            "traits": {
                "smithy.api#documentation": "<p>Identifies the Secrets Manager secret that contains credentials
needed for \n\t\t\tuser administration in the Active Directory.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Contains information about the credential provider for user
\n\t\t\tadministration.</p>"
    }
},
"com.amazonaws.licensemanagerusersubscriptions#DeleteLicenseServerEndpoint": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#DeleteLicenseServerEndpointRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#DeleteLicenseServerEndpointResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerErrorException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {

```

```

        "target": "com.amazonaws.licenseanagerusersubscriptions#ServiceQuotaExceededException"
    },
    {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ThrottlingException"
    },
    {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ValidationException"
    }
},
"traits": {
    "smithy.api#documentation": "<p>Deletes a <code>LicenseServerEndpoint</code> resource.</p>",
    "smithy.api#http": {
        "code": 200,
        "method": "POST",
        "uri": "/license-server/DeleteLicenseServerEndpoint"
    },
    "smithy.api#idempotent": {}
},
"com.amazonaws.licenseanagerusersubscriptions#DeleteLicenseServerEndpointRequest": {
    "type": "structure",
    "members": {
        "LicenseServerEndpointArn": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#Arn",
            "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) that identifies the  
<code>LicenseServerEndpoint</code> \n\t\t\t\tresource to delete.</p>",
                "smithy.api#required": {}
            }
        },
        "ServerType": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#ServerType",
            "traits": {
                "smithy.api#documentation": "<p>The type of License Server that the delete request refers to.</p>",
                "smithy.api#required": {}
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licenseanagerusersubscriptions#DeleteLicenseServerEndpointResponse": {
    "type": "structure",
    "members": {
        "LicenseServerEndpoint": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#LicenseServerEndpoint",

```

```

    "traits": {
      "smithy.api#documentation": "<p>Shows details from the <code>LicenseServerEndpoint</code>
resource that was deleted.</p>"
    }
  },
  "traits": {
    "smithy.api#output": {}
  }
},
"com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerError"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Deregisters the Active Directory identity provider from License
Manager user-based subscriptions.</p>",
    "smithy.api#http": {
      "code": 200,
      "method": "POST",
      "uri": "/identity-provider/DeregisterIdentityProvider"
    }
  }
}

```

```

    },
    "smithy.api#idempotent": {}
  }
},
"com.amazonaws.licenseanagerusersubscriptions#DeregisterIdentityProviderRequest":
{
  "type": "structure",
  "members": {
    "IdentityProvider": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#IdentityProvider",
      "traits": {
        "smithy.api#documentation": "<p>An object that specifies details for the Active Directory identity
provider.</p>"
      }
    },
    "Product": {
      "target": "smithy.api#String",
      "traits": {
        "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>\n
<p>Valid values: <code>VISUAL_STUDIO_ENTERPRISE</code> |
<code>VISUAL_STUDIO_PROFESSIONAL</code> | <code>OFFICE_PROFESSIONAL_PLUS</code> |
\n<code>REMOTE_DESKTOP_SERVICES</code>\n      </p>"
      }
    },
    "IdentityProviderArn": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#Arn",
      "traits": {
        "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) that identifies the identity
provider to deregister.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#input": {}
  }
},
"com.amazonaws.licenseanagerusersubscriptions#DeregisterIdentityProviderResponse": {
  "type": "structure",
  "members": {
    "IdentityProviderSummary": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#IdentityProviderSummary",
      "traits": {
        "smithy.api#documentation": "<p>Metadata that describes the results of an identity provider
operation.</p>",
        "smithy.api#required": {}
      }
    }
  },
  "traits": {

```

```

    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licenseanagerusersubscriptions#Directory": {
    "type": "string",
    "traits": {
      "smithy.api#pattern": "^(d|sd)-[0-9a-f]{10}$"
    }
  },
  "com.amazonaws.licenseanagerusersubscriptions#DisassociateUser": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#DisassociateUserRequest"
    },
    "output": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#DisassociateUserResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ConflictException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#InternalServerErrorException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ResourceNotFoundException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ServiceQuotaExceededException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ThrottlingException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ValidationException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Disassociates the user from an EC2 instance providing user-based subscriptions.</p>",
      "smithy.api#http": {
        "code": 200,
        "method": "POST",

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        "uri": "/user/DisassociateUser"
    },
    "smithy.api#idempotent": {}

}

},
"com.amazonaws.licenseanagerusersubscriptions#DisassociateUserRequest": {
    "type": "structure",
    "members": {
        "Username": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The user name from the Active Directory identity provider for the
user.</p>"
            }
        },
        "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The ID of the EC2 instance which provides user-based
subscriptions.</p>"
            }
        },
        "IdentityProvider": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#IdentityProvider",
            "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the Active
Directory identity provider.</p>"
            }
        },
        "InstanceUserArn": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#Arn",
            "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the user to disassociate
from the EC2 instance.</p>"
            }
        },
        "Domain": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The domain name of the Active Directory that contains
information for the user to disassociate.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
}

```

```

    },
    "com.amazonaws.licenseanagerusersubscriptions#DisassociateUserResponse": {
      "type": "structure",
      "members": {
        "InstanceUserSummary":
{
          "target": "com.amazonaws.licenseanagerusersubscriptions#InstanceUserSummary",
          "traits": {
            "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licenseanagerusersubscriptions#DomainNetworkSettings": {
      "type": "structure",
      "members": {
        "Subnets": {
          "target": "com.amazonaws.licenseanagerusersubscriptions#Subnets",
          "traits": {
            "smithy.api#documentation": "<p>Contains a list of subnets that apply for the Active Directory
domain.</p>",
            "smithy.api#length": {
              "min": 1
            },
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Contains network settings for the Active Directory domain.</p>"
      }
    },
    "com.amazonaws.licenseanagerusersubscriptions#Filter": {
      "type": "structure",
      "members": {
        "Attribute": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of an attribute to use as a filter.</p>"
          }
        }
      },
      "Operation": {
        "target": "smithy.api#String",

```



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    }
  },
  "Settings": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#Settings",
    "traits": {
      "smithy.api#documentation": "<p>The <code>Settings</code> resource contains details about the
registered \n\t\t\tidentity providers product related configuration settings, such as the \n\t\t\tsubnets to provision VPC
endpoints.</p>",
      "smithy.api#required": {}
    }
  },
  "Product": {
    "target": "smithy.api#String",
    "traits": {
      "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
      "smithy.api#required": {}
    }
  },
  "Status": {
    "target": "smithy.api#String",
    "traits": {
      "smithy.api#documentation": "<p>The status of the
identity provider.</p>",
      "smithy.api#required": {}
    }
  },
  "IdentityProviderArn": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#Arn",
    "traits": {
      "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the identity provider.</p>"
    }
  },
  "FailureMessage": {
    "target": "smithy.api#String",
    "traits": {
      "smithy.api#documentation": "<p>The failure message associated with an identity provider.</p>"
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Describes an identity provider.</p>"
  }
},
"com.amazonaws.licenseanagerusersubscriptions#IdentityProviderSummaryList": {
  "type": "list",
  "member": {

```

```

        "target": "com.amazonaws.licenseanagerusersubscriptions#IdentityProviderSummary"
    }
},
"com.amazonaws.licenseanagerusersubscriptions#InstanceSummary": {
    "type": "structure",
    "members": {
        "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                "smithy.api#required": {}
            }
        },
        "Status": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status of an EC2 instance resource.</p>",
                "smithy.api#required": {}
            }
        },
        "Products": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#StringList",
            "traits": {
                "smithy.api#documentation": "<p>A list of provided user-based subscription products.</p>",
                "smithy.api#required": {}
            }
        },
        "LastStatusCheckDate": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The date of the last status check.</p>"
            }
        },
        "StatusMessage": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status message for an EC2 instance.</p>"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Describes an EC2 instance providing user-based subscriptions.</p>"
        }
    },
    "com.amazonaws.licenseanagerusersubscriptions#InstanceSummaryList":
{
    "type": "list",

```



```

        "smithy.api#documentation": "<p>The status message for users of an EC2 instance.</p>"
    },
    "Domain": {
        "target": "smithy.api#String",
        "traits": {
            "smithy.api#documentation": "<p>The domain name of the Active Directory that contains the user
information for the product subscription.</p>"
        }
    },
    "AssociationDate": {
        "target": "smithy.api#String",
        "traits": {
            "smithy.api#documentation": "<p>The date a user was associated with an EC2 instance.</p>"
        }
    },
    "DisassociationDate": {
        "target": "smithy.api#String",
        "traits": {
            "smithy.api#documentation": "<p>The date a user was disassociated from an EC2 instance.</p>"
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Describes users of an EC2 instance providing user-based
subscriptions.</p>"
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InternalServerError": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
            "smithy.api#error": "server",
            "smithy.api#httpError": 500
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#IPv4": {

```

```

    "type": "string",
    "traits": {
      "smithy.api#pattern": "^(?:(25[0-5]|2[0-4][0-9]|1[0-9][0-9]|[1-9][0-9]|[0-9])(\\.(?!$)|$)){4}$"
    }
  },
  "com.amazonaws.licenseanagerusersubscriptions#IPv4List": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#IPv4"
    }
  },
  "com.amazonaws.licenseanagerusersubscriptions#LicenseManagerUserSubscriptions": {
    "type": "service",
    "version": "2018-05-10",
    "operations": [
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#AssociateUser"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#CreateLicenseServerEndpoint"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#DeleteLicenseServerEndpoint"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#DeregisterIdentityProvider"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#DisassociateUser"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ListIdentityProviders"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ListInstances"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ListLicenseServerEndpoints"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ListProductSubscriptions"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ListTagsForResource"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ListUserAssociations"
      }
    ]
  }
}

```



```

    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#TagResource"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#UntagResource"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings"
    }
  ],
  "traits": {
    "aws.api#service": {
      "sdkId": "License Manager User Subscriptions",
      "arnNamespace": "license-manager-user-subscriptions",
      "cloudTrailEventSource": "license-manager-user-subscriptions.amazonaws.com"
    },
    "aws.auth#sigv4": {
      "name": "license-manager-user-subscriptions"
    },
    "aws.protocols#restJson1": {},
    "smithy.api#cors": {
      "additionalAllowedHeaders": [
        "*",
        "content-type",
        "x-amz-content-sha256",
        "x-amz-user-agent",
        "x-amzn-platform-id",
        "x-amzn-trace-id",
        "content-length",

        "x-api-key",
        "authorization",
        "x-amz-date",
        "x-amz-security-token",
        "Access-Control-Allow-Headers",
        "Access-Control-Allow-Methods",
        "Access-Control-Allow-Origin"
      ]
    }
  }
}

```

```
"additionalExposedHeaders": [
    "x-amzn-errortype",
    "x-amzn-requestid",
    "x-amzn-trace-id"
],
"smithy.api#documentation": "<p>With License Manager, you can create user-based subscriptions to utilize licensed software with\n\tta per user subscription fee on Amazon EC2 instances.</p>",
"smithy.api#title": "AWS License Manager User Subscriptions",
"smithy.rules#endpointRuleSet": {
    "version": "1.0",
    "parameters": {
        "Region":
{
            "builtIn": "AWS::Region",
            "required": false,
            "documentation": "The AWS region used to dispatch the request.",
            "type": "String"
        },
        "UseDualStack": {
            "builtIn": "AWS::UseDualStack",
            "required": true,
            "default": false,
            "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
            "type": "Boolean"
        },
        "UseFIPS": {
            "builtIn": "AWS::UseFIPS",
            "required": true,
            "default": false,
            "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
            "type": "Boolean"
        },
        "Endpoint": {
            "builtIn": "SDK::Endpoint",
            "required": false,
            "documentation": "Override the endpoint used to send this request",
            "type": "String"
        }
    },
    "rules": [
        {
            "conditions": [
                {
                    "fn": "isSet",
```

```

        "argv": [
            {
                "ref": "Endpoint"
            }
        ]
    },
],
"rules": [
    {
        "conditions": [
            {
                "fn": "booleanEquals",
                "argv": [
                    {
                        "ref": "UseFIPS"
                    },
                    true
                ]
            }
        ],
        "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
        "type": "error"
    },
    {
        "conditions": [
            {
                "fn": "booleanEquals",
                "argv": [
                    {
                        "ref": "UseDualStack"
                    },
                    true
                ]
            }
        ],
        "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
        "type": "error"
    },
    {
        "conditions": [],
        "endpoint": {
            "url": {
                "ref": "Endpoint"
            },
        },
    },
    "properties": {},
    "headers": {}

```

```

        },
        "type": "endpoint"
    }
],
"type": "tree"
},
{
    "conditions": [
        {
            "fn": "isSet",
            "argv": [
                {
                    "ref": "Region"
                }
            ]
        }
    ]
},
],
"rules": [
    {
        "conditions": [
            {
                "fn": "aws.partition",

                "argv": [
                    {
                        "ref": "Region"
                    }
                ]
            },
            "assign": "PartitionResult"
        }
    ],
    "rules": [
        {
            "conditions": [
                {
                    "fn": "booleanEquals",
                    "argv": [
                        {
                            "ref": "UseFIPS"
                        },
                    ],
                }
            ]
        }
    ],
    "rules": [
        {
            "fn": "booleanEquals",
            "argv": [
                {

```

true

```

        "ref": "UseDualStack"
      },
      true
    ]
  }
],
"rules": [
  {
    "conditions": [
      {
"fn": "booleanEquals",
        "argv": [
          true,
          {
            "fn": "getAttr",
            "argv": [
              {
                "ref": "PartitionResult"
              },
              "supportsFIPS"
            ]
          }
        ]
      },
    ]
  },
  {
    "fn": "booleanEquals",
    "argv": [
      true,
      {
        "fn": "getAttr",
        "argv": [
          {
            "ref": "PartitionResult"
          },
          "supportsDualStack"
        ]
      }
    ]
  }
],
"rules": [
  {
    "conditions": [],
    "endpoint": {
      "url": "https://license-manager-user-subscriptions-

```

```

fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
    "properties": {},
    "headers": {}
  },
  "type": "endpoint"
}

],

  "type": "tree"
},
{
  "conditions": [],
  "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",

  "type": "error"
}
],
"type": "tree"
},
{
  "conditions": [
    {
      "fn": "booleanEquals",
      "argv": [

{
      "ref": "UseFIPS"
    },
    true
  ]
}
],
"rules": [
  {
    "conditions": [
      {
        "fn": "booleanEquals",
        "argv": [
          {
            "fn": "getAttr",
            "argv": [

{
      "ref": "PartitionResult"
    },
    "supportsFIPS"
  ]
},

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        true
    ]
}
],
"rules": [
{
    "conditions": [],
    "endpoint": {

"url": "https://license-manager-user-subscriptions-fips.{Region}.{PartitionResult#dnsSuffix}",
        "properties": {},
        "headers": {}
    },
    "type": "endpoint"
}
],
"type": "tree"
},
{
    "conditions": [],
    "error": "FIPS is enabled but this partition does not support FIPS",
    "type": "error"
}

],
"type": "tree"
},
{
    "conditions": [
        {
            "fn": "booleanEquals",
            "argv": [
                {
                    "ref": "UseDualStack"
                },
                true
            ]
        }
    ],
    "rules": [
        {
            "conditions": [
                {
                    "fn": "booleanEquals",
                    "argv": [
                        true,
                        {

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        "fn": "getAttr",
        "argv": [
            {
                "ref": "PartitionResult"
            },
            "supportsDualStack"
        ]
    }

    ]
}
],
"rules": [
    {
        "conditions": [],
        "endpoint": {
            "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
            "properties": {},
            "headers": {}
        },
        "type": "endpoint"
    }

],
    "type": "tree"
},
{
    "conditions": [],
    "error": "DualStack is enabled but this partition does not support DualStack",
    "type": "error"
}
],
    "type": "tree"
},
{
    "conditions": [],
    "endpoint": {
        "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dnsSuffix}",

        "properties": {},
        "headers": {}
    },
    "type": "endpoint"
}
],
    "type": "tree"

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        }
    ],
    "type": "tree"
},
{
    "conditions": [],
    "error": "Invalid Configuration: Missing Region",
    "type": "error"
}
]
},
"smithy.rules#endpointTests": {
    "testCases": [
        {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
            "expect":
{
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-east-1.api.aws"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-east-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "us-east-1",

"UseFIPS": true,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions.us-east-1.api.aws"
                }
            },
        },
    ]
}

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        "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": true
        }
    },
    {
        "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager-user-subscriptions.us-east-1.amazonaws.com"
            }
        },
        "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false
        }
    },
    {
        "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager-user-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
            }
        },
        "params": {
            "Region": "cn-north-1",
            "UseFIPS":
true,
            "UseDualStack": true
        }
    },
    {
        "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager-user-subscriptions-fips.cn-north-1.amazonaws.com.cn"
            }
        },
        "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": false
        }
    },

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{
  "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
  "expect": {
    "endpoint":
{
      "url": "https://license-manager-user-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
    }
  },
  "params": {
    "Region": "cn-north-1",
    "UseFIPS": false,
    "UseDualStack": true
  }
},
{
  "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager-user-subscriptions.cn-north-1.amazonaws.com.cn"
    }
  },
  "params": {
    "Region": "cn-north-1",
    "UseFIPS": false,
    "UseDualStack": false
  }
},
{
  "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.api.aws"
    }
  },
  "params": {
    "Region": "us-gov-east-1",
    "UseFIPS": true,
    "UseDualStack": true
  }
},
{
  "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
  "expect": {
    "endpoint":
{
      "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.amazonaws.com"
    }
  },

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    "params": {
      "Region": "us-gov-east-1",
      "UseFIPS": true,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-user-subscriptions.us-gov-east-1.api.aws"
      }
    },
    "params": {
      "Region": "us-gov-east-1",
      "UseFIPS": false,
      "UseDualStack": true
    }
  },
  {
    "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-user-subscriptions.us-gov-east-1.amazonaws.com"
      }
    },
    "params": {
      "Region": "us-gov-east-1",
      "UseFIPS": false,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
    "expect": {
      "error": "FIPS
and DualStack are enabled, but this partition does not support one or both"
    },
    "params": {
      "Region": "us-iso-east-1",
      "UseFIPS": true,
      "UseDualStack": true
    }
  },
  {
    "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
    "expect": {
      "endpoint": {

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        "url": "https://license-manager-user-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
    }
},
"params": {
    "Region": "us-iso-east-1",
    "UseFIPS": true,
    "UseDualStack": false
}
},
{
    "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
    "expect": {
        "error": "DualStack is enabled but this partition does not support DualStack"
    },
    "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": true
    }
},
{
    "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-user-subscriptions.us-iso-east-1.c2s.ic.gov"
        }
    },
    "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
    "expect": {
        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
    },
    "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": true
    }
},
{
    "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack

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disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-user-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
        }
    },
    "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": false
    }
},
{
    "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
    "expect": {
        "error": "DualStack is enabled but this partition does not support DualStack"
    },
    "params": {
        "Region": "us-isob-east-1",

"UseFIPS": false,
        "UseDualStack": true
    }
},
{
    "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-user-subscriptions.us-isob-east-1.sc2s.sgov.gov"
        }
    },
    "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
    "expect": {

"endpoint": {
        "url": "https://example.com"
    }
    },
    "params": {
        "Region": "us-east-1",
        "UseFIPS": false,

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        "UseDualStack": false,
        "Endpoint": "https://example.com"
    }
},
{
    "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
    "expect": {
        "endpoint": {
            "url": "https://example.com"
        }
    },
    "params": {
        "UseFIPS": false,
        "UseDualStack":
false,
        "Endpoint": "https://example.com"
    }
},
{
    "documentation": "For custom endpoint with fips enabled and dualstack disabled",
    "expect": {
        "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
    },
    "params": {
        "Region": "us-east-1",
        "UseFIPS": true,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
    }
},
{
    "documentation": "For custom endpoint with fips disabled and dualstack enabled",
    "expect": {
        "error": "Invalid Configuration:
Dualstack and custom endpoint are not supported"
    },
    "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": true,
        "Endpoint": "https://example.com"
    }
},
{
    "documentation": "Missing region",
    "expect": {
        "error": "Invalid Configuration: Missing Region"
    }
}

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    }
  },
  "version": "1.0"
}
},
"com.amazonaws.licensemanagerusersubscriptions#LicenseServer": {
  "type": "structure",
  "members": {
    "ProvisioningStatus": {
      "target":
"com.amazonaws.licensemanagerusersubscriptions#LicenseServerEndpointProvisioningStatus",
      "traits": {
        "smithy.api#documentation": "<p>The current state of the provisioning process for the RDS
\n\t\t\t\t\tlicense server.</p>"
      }
    },
    "HealthStatus": {
      "target": "com.amazonaws.licensemanagerusersubscriptions#LicenseServerHealthStatus",
      "traits": {
        "smithy.api#documentation": "<p>The health status of the RDS license server.</p>"
      }
    },
    "Ipv4Address": {
      "target": "smithy.api#String",
      "traits": {
        "smithy.api#documentation": "<p>A list of domain IPv4 addresses that are used for the RDS
\n\t\t\t\t\tlicense server.</p>"
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>Information
about a Remote Desktop Services (RDS) license server.</p>"
    }
  },
  "com.amazonaws.licensemanagerusersubscriptions#LicenseServerEndpoint": {
    "type": "structure",
    "members": {
      "IdentityProviderArn": {
        "target": "smithy.api#String",
        "traits": {
          "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the identity provider that's
associated with \n\t\t\t\t\tthe RDS license server endpoint.</p>"
        }
      },
      "ServerType": {

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    },
    {
      "name": "DELETION_FAILED",
      "value": "DELETION_FAILED",
      "documentation": ""
    },
    {
      "name": "DELETED",
      "value": "DELETED",
      "documentation": ""
    }
  ]
}
},
"com.amazonaws.licensemanagerusersubscriptions#LicenseServerHealthStatus": {
  "type": "string",
  "traits": {
    "smithy.api#enum": [
      {
        "name": "HEALTHY",
        "value": "HEALTHY",
        "documentation": ""
      },
      {
        "name": "UNHEALTHY",
        "value": "UNHEALTHY",
        "documentation": ""
      },
      {
        "name": "NOT_APPLICABLE",
        "value": "NOT_APPLICABLE",
        "documentation": ""
      }
    ]
  }
},
"com.amazonaws.licensemanagerusersubscriptions#LicenseServerList": {
  "type": "list",
  "member": {
    "target": "com.amazonaws.licensemanagerusersubscriptions#LicenseServer"
  }
},
"com.amazonaws.licensemanagerusersubscriptions#LicenseServerSettings": {
  "type": "structure",
  "members": {
    "ServerType": {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ServerType",

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    "traits": {
      "smithy.api#documentation": "<p>The type of license server.</p>",
      "smithy.api#required": {}
    }
  },
  "ServerSettings": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#ServerSettings",
    "traits": {
      "smithy.api#documentation": "<p>The <code>ServerSettings</code> resource contains the settings
for
your \n\t\t\tserver.</p>",
      "smithy.api#required": {}
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>The settings to configure your license server.</p>"
  }
},
"com.amazonaws.licenseanagerusersubscriptions#ListIdentityProviders": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#ListIdentityProvidersRequest"
  },
  "output": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#ListIdentityProvidersResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licenseanagerusersubscriptions#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licenseanagerusersubscriptions#ConflictException"
    },
    {
      "target": "com.amazonaws.licenseanagerusersubscriptions#InternalServerError"
    },
    {
      "target": "com.amazonaws.licenseanagerusersubscriptions#ResourceNotFoundException"
    },
    {
      "target": "com.amazonaws.licenseanagerusersubscriptions#ServiceQuotaExceededException"
    },
    {
      "target": "com.amazonaws.licenseanagerusersubscriptions#ThrottlingException"
    },
    {

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        "target": "com.amazonaws.licenseanagerusersubscriptions#ValidationException"
    }
},
"traits": {
    "smithy.api#documentation": "<p>Lists the Active Directory identity providers for user-based
subscriptions.</p>",
    "smithy.api#http": {
        "code": 200,
        "method": "POST",
        "uri": "/identity-provider/ListIdentityProviders"
    },
    "smithy.api#paginated": {
        "inputToken": "NextToken",
        "outputToken": "NextToken",
        "pageSize": "MaxResults",
        "items": "IdentityProviderSummaries"
    }
}
},
"com.amazonaws.licenseanagerusersubscriptions#ListIdentityProvidersRequest": {
    "type": "structure",
    "members": {
        "MaxResults": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#BoxInteger",
            "traits": {
                "smithy.api#documentation": "<p>The maximum number of results to return from a single
request.</p>"
            }
        },
        "Filters": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#FilterList",
            "traits": {
                "smithy.api#documentation": "<p>You can use
the following filters to streamline results:</p>\n    <ul>\n        <li>\n            <p>Product</p>\n        </li>\n        <li>\n            <p>DirectoryId</p>\n        </li>\n    </ul>"
            }
        },
        "NextToken": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>A token to specify where to start paginating. This is the nextToken
\n\tfrom a previously truncated response.</p>"
            }
        }
    }
},
"traits": {
    "smithy.api#input": {}
}

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        "target": "com.amazonaws.licenseanagerusersubscriptions#ServiceQuotaExceededException"
    },

    {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ThrottlingException"
    },
    {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ValidationException"
    }
],
"traits": {
    "smithy.api#documentation": "<p>Lists the EC2 instances providing user-based subscriptions.</p>",
    "smithy.api#http": {
        "code": 200,
        "method": "POST",
        "uri": "/instance/ListInstances"
    },
    "smithy.api#paginated": {
        "inputToken": "NextToken",
        "outputToken": "NextToken",
        "pageSize": "MaxResults",
        "items": "InstanceSummaries"
    }
}
},
"com.amazonaws.licenseanagerusersubscriptions#ListInstancesRequest": {
    "type": "structure",
    "members":
{
    "MaxResults": {
        "target": "com.amazonaws.licenseanagerusersubscriptions#BoxInteger",
        "traits": {
            "smithy.api#documentation": "<p>The maximum number of results to return from a single
request.</p>"
        }
    },
    "NextToken": {
        "target": "smithy.api#String",
        "traits": {
            "smithy.api#documentation": "<p>A token to specify where to start paginating. This is the nextToken
\n\tfrom a previously truncated response.</p>"
        }
    },
    "Filters": {
        "target": "com.amazonaws.licenseanagerusersubscriptions#FilterList",
        "traits": {
            "smithy.api#documentation": "<p>You can use the following filters to streamline results:</p>\n
<ul>\n    <li>\n        <p>Status</p>\n    </li>\n"
        }
    }
}
}

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        "target": "com.amazonaws.licenseanagerusersubscriptions#InternalServerErrorException"
    },
    {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ServiceQuotaExceededException"
    },
    {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ThrottlingException"
    },
    {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ValidationException"
    }
],
"traits": {
    "smithy.api#documentation": "<p>List the Remote Desktop Services (RDS) License Server endpoints
</p>",
    "smithy.api#http": {
        "code": 200,
        "method": "POST",
        "uri": "/license-server/ListLicenseServerEndpoints"
    },

    "smithy.api#paginated": {
        "inputToken": "NextToken",
        "outputToken": "NextToken",
        "pageSize": "MaxResults",
        "items": "LicenseServerEndpoints"
    }
}
},
"com.amazonaws.licenseanagerusersubscriptions#ListLicenseServerEndpointsRequest": {
    "type": "structure",
    "members": {
        "MaxResults": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#BoxInteger",
            "traits": {
                "smithy.api#documentation": "<p>The maximum number of results to return from a single
request.</p>",
                "smithy.api#range": {
                    "min": 1,
                    "max": 100
                }
            }
        },
        "Filters": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#FilterList",
            "traits": {
                "smithy.api#documentation": "<p>You can use the following filters to streamline results:</p>\n
<ul>\n
<li>\n
<p>IdentityProviderArn</p>\n
</li>\n
</ul>"

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        "target": "com.amazonaws.licenseanagerusersubscriptions#AccessDeniedException"
    },
    {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ConflictException"
    },
    {
        "target": "com.amazonaws.licenseanagerusersubscriptions#InternalServerError"
    },
    {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ResourceNotFoundException"
    },
    {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ServiceQuotaExceededException"
    },
    {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ThrottlingException"
    },
    {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ValidationException"
    }
],
"traits": {
    "smithy.api#documentation": "<p>Lists the user-based subscription products available from an identity
provider.</p>",
    "smithy.api#http": {
        "code": 200,
        "method": "POST",
        "uri": "/user/ListProductSubscriptions"
    },
    "smithy.api#paginated": {
        "inputToken": "NextToken",
        "outputToken": "NextToken",
        "pageSize": "MaxResults",
        "items": "ProductUserSummaries"
    }
},
"com.amazonaws.licenseanagerusersubscriptions#ListProductSubscriptionsRequest":
{
    "type": "structure",
    "members": {
        "Product": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>\n
<p>Valid values: <code>VISUAL_STUDIO_ENTERPRISE</code> |
<code>VISUAL_STUDIO_PROFESSIONAL</code> | <code>OFFICE_PROFESSIONAL_PLUS</code> |
\n<code>REMOTE_DESKTOP_SERVICES</code>\n      </p>"
            }
        }
    }
}

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    }
  },
  "IdentityProvider": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#IdentityProvider",
    "traits": {
      "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
      "smithy.api#required": {}
    }
  },
  "MaxResults": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#BoxInteger",
    "traits": {
      "smithy.api#documentation": "<p>The maximum number of results to return from a single
request.</p>"
    }
  },
  "Filters": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#FilterList",
    "traits": {
      "smithy.api#documentation": "<p>You can use the following filters to streamline results:</p>\n
<ul>\n      <li>\n        <p>Status</p>\n      </li>\n      <li>\n        <p>Username</p>\n
</li>\n      <li>\n        <p>Domain</p>\n      </li>\n    </ul>"
    }
  },
  "NextToken": {
    "target": "smithy.api#String",
    "traits": {
      "smithy.api#documentation": "<p>A token to specify where to start paginating.
This is the nextToken \n\tfrom a previously truncated response.</p>"
    }
  },
  "traits": {
    "smithy.api#input": {}
  },
},
"com.amazonaws.licenseanagerusersubscriptions#ListProductSubscriptionsResponse": {
  "type": "structure",
  "members": {
    "ProductUserSummaries": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#ProductUserSummaryList",
      "traits": {
        "smithy.api#documentation": "<p>Metadata that describes the list product subscriptions
operation.</p>"
      }
    },
    "NextToken": {
      "target": "smithy.api#String",

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    "traits": {
      "smithy.api#documentation": "<p>The next token used for paginated responses. When this field isn't
empty, \n\tthere are additional elements that the service
hasn't included in this request. Use this token \n\t\twith the next request to retrieve additional objects.</p>"
    }
  },
  "traits": {
    "smithy.api#output": {}
  },
  "com.amazonaws.licenseanagerusersubscriptions#ListTagsForResource": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#ListTagsForResourceRequest"
    },
    "output": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#ListTagsForResourceResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#InternalServerError"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ResourceNotFoundException"
      },
      {
        "target":
"com.amazonaws.licenseanagerusersubscriptions#ValidationException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Returns the list of tags for the specified resource.</p>",
      "smithy.api#http": {
        "method": "GET",
        "uri": "/tags/{ResourceArn}"
      },
      "smithy.api#readonly": {}
    }
  },
  "com.amazonaws.licenseanagerusersubscriptions#ListTagsForResourceRequest": {
    "type": "structure",
    "members": {
      "ResourceArn": {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ResourceArn",
        "traits": {
          "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource whose tags
you want to retrieve.</p>",

```

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        "smithy.api#httpLabel": {},
        "smithy.api#required": {}

    },
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licenseanagerusersubscriptions#ListTagsForResourceResponse": {
    "type": "structure",
    "members": {
        "Tags": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#Tags",
            "traits": {
                "smithy.api#documentation": "<p>The tags for the specified resource.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licenseanagerusersubscriptions#ListUserAssociations": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ListUserAssociationsRequest"
    },
    "output": {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ListUserAssociationsResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licenseanagerusersubscriptions#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licenseanagerusersubscriptions#ConflictException"
        },
        {
            "target": "com.amazonaws.licenseanagerusersubscriptions#InternalServerException"
        },
        {
            "target": "com.amazonaws.licenseanagerusersubscriptions#ResourceNotFoundException"
        },
        {
            "target": "com.amazonaws.licenseanagerusersubscriptions#ServiceQuotaExceededException"
        }
    ]
}

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    {
      "target": "com.amazonaws.licenseanagerusersubscriptions#ThrottlingException"
    },
    {
      "target": "com.amazonaws.licenseanagerusersubscriptions#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Lists user associations for an identity provider.</p>",
    "smithy.api#http": {
      "code": 200,
      "method": "POST",
      "uri": "/user/ListUserAssociations"
    },
    "smithy.api#paginated": {
      "inputToken": "NextToken",
      "outputToken": "NextToken",
      "pageSize": "MaxResults",
      "items": "InstanceUserSummaries"
    }
  }
},
"com.amazonaws.licenseanagerusersubscriptions#ListUserAssociationsRequest": {
  "type": "structure",
  "members": {
    "InstanceId": {
      "target": "smithy.api#String",
      "traits": {
        "smithy.api#documentation": "<p>The ID of the EC2 instance, which
provides user-based subscriptions.</p>",
        "smithy.api#required": {}
      }
    },
    "IdentityProvider": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#IdentityProvider",
      "traits": {
        "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
        "smithy.api#required": {}
      }
    },
    "MaxResults": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#BoxInteger",
      "traits": {
        "smithy.api#documentation": "<p>The maximum number of results to return from a single
request.</p>"
      }
    },
    "Filters": {

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        "target": "com.amazonaws.licenseanagerusersubscriptions#FilterList",
        "traits": {
            "smithy.api#documentation": "<p>You can use the following filters to streamline results:</p>\n        <ul>\n
            <li>\n                <p>Status</p>\n                </li>\n                <li>\n                    <p>Username</p>\n                    </li>\n
            <li>\n                <p>Domain</p>\n                </li>\n            </ul>"
        }
    },
    "NextToken": {
        "target": "smithy.api#String",
        "traits": {
            "smithy.api#documentation": "<p>A token to specify where to start paginating. This is the nextToken\n\tfrom a previously truncated response.</p>"
        }
    }
},
"traits": {
    "smithy.api#input": {}
}
},
"com.amazonaws.licenseanagerusersubscriptions#ListUserAssociationsResponse": {
    "type": "structure",
    "members": {
        "InstanceUserSummaries": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#InstanceUserSummaryList",
            "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the list user association operation.</p>"
            }
        },
        "NextToken": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The next token used for paginated responses. When this field isn't empty, \n\tthere are additional elements that the service hasn't included in this request. Use this token \n\t\twith the next request to retrieve additional objects.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licenseanagerusersubscriptions#ProductUserSummary": {
    "type": "structure",
    "members": {
        "Username":

```



```

{
  "target": "smithy.api#String",
  "traits": {
    "smithy.api#documentation": "<p>The user name from the identity provider for this product
user.</p>",
    "smithy.api#required": {}
  }
},
"Product": {
  "target": "smithy.api#String",
  "traits": {
    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
    "smithy.api#required": {}
  }
},
"IdentityProvider": {
  "target": "com.amazonaws.licenseanagerusersubscriptions#IdentityProvider",
  "traits": {
    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
    "smithy.api#required": {}
  }
},
"Status": {
  "target": "smithy.api#String",
  "traits": {
    "smithy.api#documentation": "<p>The status of a product for this user.</p>",
    "smithy.api#required": {}
  }
},
"ProductUserArn": {
  "target": "com.amazonaws.licenseanagerusersubscriptions#Arn",
  "traits": {
    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) for this product user.</p>"
  }
},
"StatusMessage": {
  "target": "smithy.api#String",
  "traits": {
    "smithy.api#documentation": "<p>The status message for a product for this user.</p>"
  }
},
"Domain": {
  "target": "smithy.api#String",
  "traits": {
    "smithy.api#documentation": "<p>The domain name of the Active Directory that contains the user
information for the product subscription.</p>"
  }
}

```

```

    },
    "SubscriptionStartDate": {
      "target": "smithy.api#String",
      "traits": {
        "smithy.api#documentation": "<p>The start date of a subscription.</p>"
      }
    },
    "SubscriptionEndDate": {
      "target": "smithy.api#String",
      "traits": {
        "smithy.api#documentation": "<p>The end date of a subscription.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>A summary of the user-based subscription products for a specific user.</p>"
  },
  "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList": {
    "type":
"list",
    "member": {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary"
    }
  },
  "com.amazonaws.licensemanagerusersubscriptions#RdsSalSettings": {
    "type": "structure",
    "members": {
      "RdsSalCredentialsProvider": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#CredentialsProvider",
        "traits": {
          "smithy.api#documentation": "<p>The <code>CredentialsProvider</code> resource contains a reference to the credentials provider that's used for RDS license server user administration.</p>",
          "smithy.api#required": {}
        }
      }
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Server settings that are specific to a Remote Desktop Services (RDS) license server.</p>"
  },
  "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider": {
    {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest"
      }
    }
  }
}

```

```

    },
    "output": {
      "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerErrorException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
      },
      {
        "target":
"com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Registers an identity provider for user-based subscriptions.</p>",
      "smithy.api#http": {
        "code": 200,
        "method": "POST",
        "uri": "/identity-provider/RegisterIdentityProvider"
      },
      "smithy.api#idempotent": {}
    }
  },
  "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest": {
    "type": "structure",
    "members": {
      "IdentityProvider": {

        "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
        "traits": {
          "smithy.api#documentation": "<p>An object that specifies details for the identity provider to
register.</p>",
          "smithy.api#required": {}

```

```

    }
  },
  "Product": {
    "target": "smithy.api#String",
    "traits": {
      "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>\n
<p>Valid values: <code>VISUAL_STUDIO_ENTERPRISE</code> |
<code>VISUAL_STUDIO_PROFESSIONAL</code> | <code>OFFICE_PROFESSIONAL_PLUS</code> |
\n<code>REMOTE_DESKTOP_SERVICES</code>\n      </p>",
      "smithy.api#required": {}
    }
  },
  "Settings": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#Settings",
    "traits": {
      "smithy.api#documentation": "<p>The registered identity providers product related configuration
\n\t\t\tsettings such as the subnets to provision VPC endpoints.</p>"
    }
  },
  "Tags": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#Tags",
    "traits": {
      "smithy.api#documentation": "<p>The tags that apply to the identity provider's registration.</p>"
    }
  },
  "traits": {
    "smithy.api#input": {}
  },
  "com.amazonaws.licenseanagerusersubscriptions#RegisterIdentityProviderResponse": {
    "type": "structure",
    "members": {
      "IdentityProviderSummary": {
        "target": "com.amazonaws.licenseanagerusersubscriptions#IdentityProviderSummary",
        "traits": {
          "smithy.api#documentation":
            "<p>Metadata that describes the results of an identity provider operation.</p>",
          "smithy.api#required": {}
        }
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licenseanagerusersubscriptions#ResourceArn": {

```

```

    "type": "string",
    "traits": {
      "smithy.api#pattern": "^arn:([a-z0-9-\\.]{1,63}):([a-z0-9-\\.]{1,63}):([a-z0-9-\\.]{1,63}):([a-z0-9-\\.]{1,63}):([a-z0-9-\\.]{1,510})/([a-z0-9-\\.]{1,510})$"
    }
  },
  "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException": {
    "type": "structure",
    "members": {
      "message": {
        "target": "smithy.api#String"
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>The resource couldn't be found.</p>",

"smithy.api#error": "client",
      "smithy.api#httpError": 404
    }
  },
  "com.amazonaws.licensemanagerusersubscriptions#SecretsManagerCredentialsProvider": {
    "type": "structure",
    "members": {
      "SecretId": {
        "target": "smithy.api#String",
        "traits": {
          "smithy.api#documentation": "<p>The ID of the Secrets Manager secret that contains
credentials.</p>",
          "smithy.api#length": {
            "min": 1
          }
        }
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>Contains a credentials secret that's stored in Secrets Manager.</p>"
    }
  },
  "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup": {
    "type": "string",
    "traits": {
      "smithy.api#length": {

"min": 5,
        "max": 200
      },
      "smithy.api#pattern": "^sg-([0-9a-z]{8})([0-9a-z]{17})$"
    }
  }
}

```


[illegible]


```

        "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
        "traits": {
            "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
            "smithy.api#required": {}
        }
    },
    "Product": {
        "target": "smithy.api#String",
        "traits": {
            "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>\n    <p>Valid values:  
<code>VISUAL_STUDIO_ENTERPRISE</code> | <code>VISUAL_STUDIO_PROFESSIONAL</code> |  
<code>OFFICE_PROFESSIONAL_PLUS</code> | \n<code>REMOTE_DESKTOP_SERVICES</code>\n</p>",
            "smithy.api#required": {}
        }
    },
    "Domain": {
        "target": "smithy.api#String",
        "traits": {
            "smithy.api#documentation": "<p>The domain name of the Active Directory that contains the user  
for whom to start the product \n\t\t\t\t\tsubscription.</p>"
        }
    },
    "Tags": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#Tags",
        "traits": {
            "smithy.api#documentation": "<p>The tags that apply to the product subscription.</p>"
        }
    }
},
"traits": {
    "smithy.api#input": {}
},
"com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse": {
    "type": "structure",
    "members": {
        "ProductUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
            "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the start product subscription  
operation.</p>",
                "smithy.api#required": {}
            }
        }
    }
},

```

```

    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licenseanagerusersubscriptions#StopProductSubscription": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#StopProductSubscriptionRequest"
    },
    "output": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#StopProductSubscriptionResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ConflictException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#InternalServerErrorException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ResourceNotFoundException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ServiceQuotaExceededException"
      },
      {
        "target": "com.amazonaws.licenseanagerusersubscriptions#ThrottlingException"
      }
    ],
    {
      "target": "com.amazonaws.licenseanagerusersubscriptions#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Stops a product subscription for a user with the specified identity provider.</p>",
    "smithy.api#http": {
      "code": 200,
      "method": "POST",
      "uri": "/user/StopProductSubscription"
    }
  }
},
"com.amazonaws.licenseanagerusersubscriptions#StopProductSubscriptionRequest": {

```

```

    "type": "structure",
    "members": {
        "Username": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>"
            }
        },
        "IdentityProvider": {
            "target":
"com.amazonaws.licenseanagerusersubscriptions#IdentityProvider",
            "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>"
            }
        },
        "Product": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>\n
<p>Valid values: <code>VISUAL_STUDIO_ENTERPRISE</code> |
<code>VISUAL_STUDIO_PROFESSIONAL</code> | <code>OFFICE_PROFESSIONAL_PLUS</code> |
\n<code>REMOTE_DESKTOP_SERVICES</code>\n      </p>"
            }
        },
        "ProductUserArn": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#Arn",
            "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the product user.</p>"
            }
        },
        "Domain": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The domain name of the Active Directory that contains the user
for whom to stop the product \n\t\t\t\t\tsubscription.</p>"
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licenseanagerusersubscriptions#StopProductSubscriptionResponse": {
        "type": "structure",
        "members": {
            "ProductUserSummary": {
                "target": "com.amazonaws.licenseanagerusersubscriptions#ProductUserSummary",

```

```

        "traits": {
            "smithy.api#documentation": "<p>Metadata that describes the start product subscription
operation.</p>",
            "smithy.api#required": {}
        }
    },
    "traits": {
        "smithy.api#output": {}
    },
    "com.amazonaws.licenseanagerusersubscriptions#StringList": {
        "type": "list",
        "member": {
            "target": "smithy.api#String"
        }
    },
    "com.amazonaws.licenseanagerusersubscriptions#Subnet": {
        "type": "string",
        "traits": {
            "smithy.api#pattern": "^subnet-[a-z0-9]{8,17}"
        }
    },
    "com.amazonaws.licenseanagerusersubscriptions#Subnets": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#Subnet"
        }
    },
    "com.amazonaws.licenseanagerusersubscriptions#TagKeyList": {
        "type": "list",
        "member": {
            "target": "smithy.api#String"
        },
        "traits": {
            "smithy.api#length": {
                "min": 0,
                "max": 50
            },
            "smithy.api#sensitive": {}
        }
    },
    "com.amazonaws.licenseanagerusersubscriptions#TagResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licenseanagerusersubscriptions#TagResourceRequest"
        }
    }
}

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```

    },
    "output": {
      "target": "com.amazonaws.licensemanagerusersubscriptions#TagResourceResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerErrorException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
      }
    ],
    "traits": {
      "smithy.api#documentation":
        "<p>Adds tags to a resource.</p>",
      "smithy.api#http": {
        "method": "PUT",
        "uri": "/tags/{ResourceArn}"
      },
      "smithy.api#idempotent": {}
    }
  },
  "com.amazonaws.licensemanagerusersubscriptions#TagResourceRequest": {
    "type": "structure",
    "members": {
      "ResourceArn": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceArn",
        "traits": {
          "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource that you want
to tag.</p>",
          "smithy.api#httpLabel": {},
          "smithy.api#required": {}
        }
      },
      "Tags": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#Tags",
        "traits": {
          "smithy.api#documentation":
            "<p>The tags to apply to the specified resource.</p>",
          "smithy.api#required": {}
        }
      }
    },
    "traits": {
      "smithy.api#input": {}
    }
  }
}

```

```

    }
  },
  "com.amazonaws.licenseanagerusersubscriptions#TagResourceResponse": {
    "type": "structure",
    "members": {},
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licenseanagerusersubscriptions#Tags": {
    "type": "map",
    "key": {
      "target": "smithy.api#String"
    },
    "value": {
      "target": "smithy.api#String"
    },
    "traits": {
      "smithy.api#length": {
        "min": 0,
        "max": 50
      },
      "smithy.api#sensitive": {}
    }
  },
  "com.amazonaws.licenseanagerusersubscriptions#ThrottlingException":
{
  "type": "structure",
  "members": {
    "message": {
      "target": "smithy.api#String"
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>The request was denied because of request throttling. Retry the
request.</p>",
    "smithy.api#error": "client"
  }
},
  "com.amazonaws.licenseanagerusersubscriptions#UntagResource": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#UntagResourceRequest"
    },
    "output": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#UntagResourceResponse"
    },
    "errors": [

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```

    {
      "target": "com.amazonaws.licenseanagerusersubscriptions#InternalServerErrorException"
    },
    {

      "target": "com.amazonaws.licenseanagerusersubscriptions#ResourceNotFoundException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Removes tags from a resource.</p>",
    "smithy.api#http": {
      "method": "DELETE",
      "uri": "/tags/{ResourceArn}"
    },
    "smithy.api#idempotent": {}
  }
},
"com.amazonaws.licenseanagerusersubscriptions#UntagResourceRequest": {
  "type": "structure",
  "members": {
    "ResourceArn": {
      "target": "com.amazonaws.licenseanagerusersubscriptions#ResourceArn",
      "traits": {
        "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource that you want
to remove tags from.</p>",
        "smithy.api#httpLabel": {},
        "smithy.api#required": {}
      }
    }
  },
  "TagKeys": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#TagKeyList",
    "traits": {
      "smithy.api#documentation": "<p>The tag keys to remove from the resource.</p>",
      "smithy.api#httpQuery": "tagKeys",
      "smithy.api#required": {}
    }
  }
},
"traits": {
  "smithy.api#input": {}
}
},
"com.amazonaws.licenseanagerusersubscriptions#UntagResourceResponse": {
  "type": "structure",
  "members": {},
  "traits": {
    "smithy.api#output": {}
  }
}

```



```

\<code>REMOTE_DESKTOP_SERVICES</code>\n      </p>"
    }
  },

  "IdentityProviderArn": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#Arn",
    "traits": {
      "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the identity provider to
update.</p>"
    }
  },

  "UpdateSettings": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#UpdateSettings",
    "traits": {
      "smithy.api#documentation": "<p>Updates the registered identity providers product related
configuration settings. You can\n\t\t\t\t\tupdate any combination of settings in a single operation such as the:</p>\n
<ul>\n      <li>\n        <p>Subnets which you want to add to provision VPC endpoints.</p>\n      </li>\n
      <li>\n        <p>Subnets which you want to remove the VPC endpoints from.</p>\n      </li>\n
      <li>\n        <p>Security
group ID which permits traffic to the VPC endpoints.</p>\n      </li>\n    </ul>",
      "smithy.api#required": {}
    }
  },

  "traits": {
    "smithy.api#input": {}
  },

  "com.amazonaws.licenseanagerusersubscriptions#UpdateIdentityProviderSettingsResponse": {
    "type": "structure",
    "members": {
      "IdentityProviderSummary": {
        "target": "com.amazonaws.licenseanagerusersubscriptions#IdentityProviderSummary",
        "traits": {
          "smithy.api#required": {}
        }
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },

  "com.amazonaws.licenseanagerusersubscriptions#UpdateSettings": {
    "type": "structure",
    "members": {
      "AddSubnets": {

```

```

    "target": "com.amazonaws.licenseanagerusersubscriptions#Subnets",
    "traits": {
      "smithy.api#documentation": "<p>The ID of one or more subnets in which License Manager will
create a VPC endpoint for products that require connectivity to activation servers.</p>",
      "smithy.api#required": {}
    }
  },
  "RemoveSubnets": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#Subnets",
    "traits": {
      "smithy.api#documentation": "<p>The ID of one or more subnets to remove.</p>",
      "smithy.api#required": {}
    }
  },
  "SecurityGroupId": {
    "target": "com.amazonaws.licenseanagerusersubscriptions#SecurityGroup",
    "traits": {
      "smithy.api#documentation": "<p>A security group ID that
allows inbound TCP port 1688 communication between resources in your VPC and the VPC endpoints for
activation servers.</p>"
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration
settings such as the subnets to provision VPC endpoints.</p>"
  }
},
"com.amazonaws.licenseanagerusersubscriptions#ValidationException": {
  "type": "structure",
  "members": {
    "message": {
      "target": "smithy.api#String"
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>A parameter is not valid.</p>",
    "smithy.api#error": "client"
  }
}
}
}

```

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ListReceivedLicenses

Initialize stack step

spanInitializeStart

RegisterServiceMetadata

legacyEndpointContextSetter

SetLogger

spanInitializeEnd

Serialize stack step

spanBuildRequestStart

setOperationInput

ResolveEndpoint

OperationSerializer

Build stack step

ClientRequestID

ComputeContentLength

SetCredentialSourceMiddleware

UserAgent

AddTimeOffsetMiddleware

RecursionDetection

spanBuildRequestEnd

Finalize stack step

spanRetryLoop

Retry

RetryMetricsHeader

ResolveAuthScheme

GetIdentity

ResolveEndpointV2

disableHTTPS

ComputePayloadHash

setLegacyContextSigningOptions

Signing

Deserialize stack step

AddRawResponseToMetadata

ErrorCloseResponseBody

CloseResponseBody

ResponseErrorWrapper

```

RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
    "context"
    "fmt"
    awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
    "github.com/aws/smithy-go/middleware"
    smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks in the specified license. Check in a license when it is no longer in use.
func (c *Client) CheckInLicense(ctx context.Context, params *CheckInLicenseInput, optFns ...func(*Options))
(*CheckInLicenseOutput, error) {
    if params == nil {
        params = &CheckInLicenseInput{}
    }

    result, metadata, err := c.invokeOperation(ctx, "CheckInLicense", params, optFns,
c.addOperationCheckInLicenseMiddlewares)
    if err != nil {
        return nil, err
    }

    out := result.(*CheckInLicenseOutput)
    out.ResultMetadata = metadata
    return out, nil
}

type CheckInLicenseInput struct {

    // License consumption token.
    //
    // This member is required.
    LicenseConsumptionToken *string

    // License beneficiary.
    Beneficiary *string

    noSmithyDocumentSerde
}

```



```

type
    CheckInLicenseOutput struct {
        // Metadata pertaining to the operation's result.
        ResultMetadata middleware.Metadata

        noSmithyDocumentSerde
    }

func (c *Client) addOperationCheckInLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
    if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
        return err
    }
    err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckInLicense{}, middleware.After)
    if err != nil {
        return err
    }
    err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckInLicense{}, middleware.After)
    if err != nil {
        return err
    }
    if err := addProtocolFinalizerMiddlewares(stack, options, "CheckInLicense"); err != nil {
        return fmt.Errorf("add protocol finalizers: %v", err)
    }

    if err = addLegacyEndpointContextSetter(stack, options); err != nil {
        return err
    }
    if err = addSetLoggerMiddleware(stack, options); err != nil {
        return err
    }
    if err = addClientRequestID(stack); err != nil {
        return err
    }
    if
    err = addComputeContentLength(stack); err != nil {
        return err
    }
    if err = addResolveEndpointMiddleware(stack, options); err != nil {
        return err
    }
    if err = addComputePayloadSHA256(stack); err != nil {
        return err
    }
    if err = addRetry(stack, options); err != nil {
        return err
    }
    if err = addRawResponseToMetadata(stack); err != nil {
        return err
    }

```

```

}
if err = addRecordResponseTiming(stack); err != nil {
    return err
}
if err = addSpanRetryLoop(stack, options); err != nil {
    return err
}
if err = addClientUserAgent(stack, options); err != nil {
    return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
    return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
    return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
    return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
    return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
    return err
}
if
err = addCredentialSource(stack, options); err != nil {
    return err
}
if err = addOpCheckInLicenseValidationMiddleware(stack); err != nil {
    return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckInLicense(options.Region),
middleware.Before); err != nil {
    return err
}
if err = addRecursionDetection(stack); err != nil {
    return err
}
if err = addRequestIDRetrieverMiddleware(stack); err != nil {
    return err
}
if err = addResponseErrorMiddleware(stack); err != nil {
    return err
}
if err = addRequestResponseLogging(stack, options); err != nil {
    return err
}
}

```

```

if err = addDisableHTTPSMiddleware(stack, options); err != nil {
    return err
}
if err = addSpanInitializeStart(stack); err != nil {
    return err
}
if err = addSpanInitializeEnd(stack); err != nil {
    return err
}
if err = addSpanBuildRequestStart(stack); err != nil {
    return err
}
if err = addSpanBuildRequestEnd(stack); err != nil {
    return err
}
return nil
}

```

```

func newServiceMetadataMiddleware_opCheckInLicense(region
string) *awsmiddleware.RegisterServiceMetadata {
return &awsmiddleware.RegisterServiceMetadata{
    Region:    region,
    ServiceID: ServiceID,
    OperationName: "CheckInLicense",
}
}
{
    "smithy": "2.0",
    "metadata": {
        "suppressions": [
            {
                "id": "HttpMethodSemantics",
                "namespace": "*"
            },
            {
                "id": "HttpStatusCodeSemantics",
                "namespace": "*"
            },
            {
                "id": "PaginatedTrait",
                "namespace": "*"
            },
            {
                "id": "HttpHeaderTrait",
                "namespace": "*"
            },
            {
                "id": "HttpUriConflict",

```

```

    "namespace": "*"
  },
  {
    "id": "Service",
    "namespace": "*"
  }
]
},
"shapes": {
  "com.amazonaws.licensemanager#AWSLicenseManager": {
    "type": "service",
    "version": "2018-08-01",
    "operations": [
      {
        "target": "com.amazonaws.licensemanager#AcceptGrant"
      },
      {
        "target": "com.amazonaws.licensemanager#CheckInLicense"
      },
      {
        "target": "com.amazonaws.licensemanager#CheckoutBorrowLicense"
      },
      {
        "target": "com.amazonaws.licensemanager#CheckoutLicense"
      },
      {
        "target": "com.amazonaws.licensemanager#CreateGrant"
      },
      {
        "target": "com.amazonaws.licensemanager#CreateGrantVersion"
      },
      {
        "target": "com.amazonaws.licensemanager#CreateLicense"
      },
      {
        "target": "com.amazonaws.licensemanager#CreateLicenseConfiguration"
      },
      {
        "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource"
      },
      {
        "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator"
      },
      {
        "target": "com.amazonaws.licensemanager#CreateLicenseVersion"
      },
      {

```

```

    "target": "com.amazonaws.licensemanager#CreateToken"
  },
  {
    "target": "com.amazonaws.licensemanager#DeleteGrant"
  },
  {
    "target": "com.amazonaws.licensemanager#DeleteLicense"
  },
  {
    "target": "com.amazonaws.licensemanager#DeleteLicenseConfiguration"
  },
  {
    "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator"
  },
  {
    "target": "com.amazonaws.licensemanager#DeleteToken"
  },
  {
    "target": "com.amazonaws.licensemanager#ExtendLicenseConsumption"
  },
},
{
  "target": "com.amazonaws.licensemanager#GetAccessToken"
},
{
  "target": "com.amazonaws.licensemanager#GetGrant"
},
{
  "target": "com.amazonaws.licensemanager#GetLicense"
},
{
  "target": "com.amazonaws.licensemanager#GetLicenseConfiguration"
},
{
  "target": "com.amazonaws.licensemanager#GetLicenseConversionTask"
},
{
  "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGenerator"
},
{
  "target": "com.amazonaws.licensemanager#GetLicenseUsage"
},
{
  "target": "com.amazonaws.licensemanager#GetServiceSettings"
},
{
  "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfiguration"
}

```

```

    },
    {
      "target": "com.amazonaws.licensemanager#ListDistributedGrants"
    },
    {
      "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperations"
    },
    {
      "target": "com.amazonaws.licensemanager#ListLicenseConfigurations"
    },
    {
      "target": "com.amazonaws.licensemanager#ListLicenseConversionTasks"
    },
    {
      "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators"
    },
    {
      "target": "com.amazonaws.licensemanager#ListLicenses"
    },
    {
      "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResource"
    },
    {
      "target": "com.amazonaws.licensemanager#ListLicenseVersions"
    },
    {
      "target": "com.amazonaws.licensemanager#ListReceivedGrants"
    },
    {
      "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization"
    },
    {
      "target": "com.amazonaws.licensemanager#ListReceivedLicenses"
    },
    {
      "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganization"
    },
    {
      "target": "com.amazonaws.licensemanager#ListResourceInventory"
    },
    {
      "target": "com.amazonaws.licensemanager#ListTagsForResource"
    },
    {
      "target": "com.amazonaws.licensemanager#ListTokens"
    },
    {

```

```

    "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration"
  },
  {
    "target": "com.amazonaws.licensemanager#RejectGrant"
  },
  {
    "target": "com.amazonaws.licensemanager#TagResource"
  },
  {
    "target": "com.amazonaws.licensemanager#UntagResource"
  },
  {
    "target": "com.amazonaws.licensemanager#UpdateLicenseConfiguration"
  },
  {
    "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator"
  },
  {
    "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResource"
  },
  {
    "target": "com.amazonaws.licensemanager#UpdateServiceSettings"
  }
],
"traits": {
  "aws.api#service": {
    "sdkId": "License Manager",
    "arnNamespace": "license-manager",
    "cloudFormationName": "LicenseManager",
    "cloudTrailEventSource": "licensemanager.amazonaws.com",
    "endpointPrefix": "license-manager"
  },
  "aws.auth#sigv4": {
    "name": "license-manager"
  },
  "aws.protocols#awsJson1_1": {},
  "smithy.api#documentation": "<p>License Manager makes it easier to manage licenses from software vendors across multiple \n      Amazon Web Services accounts and on-premises servers.</p>",
  "smithy.api#title": "AWS License Manager",
  "smithy.api#xmlNamespace": {
    "uri": "https://license-manager.amazonaws.com/doc/2018_08_01"
  },
  "smithy.rules#endpointRuleSet": {
    "version": "1.0",
    "parameters": {
      "Region": {
        "builtIn": "AWS::Region",
        "required": false,

```

```

        "documentation": "The AWS region used to dispatch the request.",
        "type": "String"
    },
    "UseDualStack": {
        "builtIn": "AWS::UseDualStack",
        "required": true,
        "default": false,
        "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not
support dual-stack, dispatching the request MAY return an error.",
        "type": "Boolean"
    },
    "UseFIPS": {
        "builtIn": "AWS::UseFIPS",
        "required": true,
        "default": false,
        "documentation": "When true, send
this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant
endpoint, dispatching the request will return an error.",
        "type": "Boolean"
    },
    "Endpoint": {
        "builtIn": "SDK::Endpoint",
        "required": false,
        "documentation": "Override the endpoint used to send this request",
        "type": "String"
    }
},
"rules": [
    {
        "conditions": [
            {
                "fn": "isSet",
                "argv": [
                    {
                        "ref": "Endpoint"
                    }
                ]
            }
        ]
    }
],
"type": "tree",
"rules": [
    {
        "conditions": [
            {
                "fn": "booleanEquals",
                "argv": [
                    {

```



```

        "ref": "UseFIPS"
      },
      true
    ]
  }
},
"error": "Invalid Configuration: FIPS and custom endpoint are not supported",
"type": "error"
},
{
  "conditions": [
    {
      "fn": "booleanEquals",
      "argv": [
        {
          "ref": "UseDualStack"
        },
        true
      ]
    }
  ],
  "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
  "type": "error"
},
{
  "conditions": [],
  "endpoint": {
    "url": {
      "ref": "Endpoint"
    },
    "properties": {},
    "headers": {}
  },
  "type": "endpoint"
}
],
},
{
  "conditions": [
    {
      "fn": "isSet",
      "argv": [
        {
          "ref": "Region"
        }
      ]
    }
  ]
}
}

```

```

    ],
    "type": "tree",
    "rules": [
      {
        "conditions": [
          {
            "fn": "aws.partition",
            "argv": [
              {
                "ref": "Region"
              }
            ],
            "assign": "PartitionResult"
          }
        ],
        "type": "tree",
        "rules": [
          {
            "conditions": [
              {
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref":
"UseFIPS"

                    },
                  true
                ]
              },
              {
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref": "UseDualStack"
                  },
                  true
                ]
              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      true,
                      {

```

```

        "fn": "getAttr",
        "argv": [
            {
                "ref": "PartitionResult"
            },
            "supportsFIPS"
        ]
    }
    ],
    {
        "fn": "booleanEquals",
        "argv": [
            true,
            {
                "fn": "getAttr",
                "argv": [
                    {
                        "ref": "PartitionResult"
                    },
                    "supportsDualStack"
                ]
            }
        ]
    },
    "type": "tree",
    "rules": [
        {
            "conditions": [],
            "endpoint": {
                "url": "https://license-manager-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                "properties": {},
                "headers": {}
            },
            "type": "endpoint"
        }
    ],
    {
        "conditions": [],
        "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
        "type": "error"
    }
]

```

```

    }
  ]
},
{
  "conditions": [
    {
      "fn": "booleanEquals",

      "argv": [
        {
          "ref": "UseFIPS"
        },
        true
      ]
    }
  ],
  "type": "tree",
  "rules": [
    {
      "conditions": [
        {
          "fn": "booleanEquals",
          "argv": [
            true,

            {
              "fn": "getAttr",
              "argv": [
                {
                  "ref": "PartitionResult"
                },
                "supportsFIPS"
              ]
            }
          ]
        }
      ],
      "type": "tree",
      "rules": [

        {
          "conditions": [],
          "endpoint": {
            "url": "https://license-manager-fips.{Region}.{PartitionResult#dnsSuffix}",
            "properties": {},
            "headers": {}
          },
          "type": "endpoint"
        }
      ]
    }
  ]
}

```

```

        }
    ]
},
{
    "conditions": [],
    "error": "FIPS is enabled but this
partition does not support FIPS",
    "type": "error"
}
]
},
{
    "conditions": [
        {
            "fn": "booleanEquals",
            "argv": [
                {
                    "ref": "UseDualStack"
                },
                true
            ]
        }
    ],
    "type": "tree",
    "rules": [
        {
            "conditions": [
                {
                    "fn": "booleanEquals",
                    "argv": [
                        true,
                        {
                            "fn": "getAttr",
                            "argv": [
                                {
                                    "ref": "PartitionResult"
                                },
                                ],
                        }
                    ]
                }
            ],
            "type": "tree",
            "rules": [
                {
                    "conditions": [],

```

"supportsDualStack"

```

        "endpoint": {
            "url": "https://license-
manager.{Region}.{PartitionResult#dualStackDnsSuffix}",
            "properties": {},
            "headers": {}
        },
        "type": "endpoint"
    }
]
},
{
    "conditions": [],
    "error": "DualStack is enabled but this partition does not support DualStack",
    "type": "error"
}
]
},
{
    "conditions": [],
    "endpoint": {
        "url": "https://license-manager.{Region}.{PartitionResult#dnsSuffix}",
        "properties": {},
        "headers": {}
    },
    "type": "endpoint"
}
]
}
]
},
{
    "conditions": [],
    "error": "Invalid Configuration: Missing Region",
    "type": "error"
}
]
},
"smithy.rules#endpointTests": {
    "testCases": [
        {
            "documentation": "For region af-south-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint":
{
                    "url": "https://license-manager.af-south-1.amazonaws.com"
                }
            },

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```

    "params": {
      "Region": "af-south-1",
      "UseFIPS": false,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region ap-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.ap-east-1.amazonaws.com"
      }
    },
    "params": {
      "Region": "ap-east-1",
      "UseFIPS": false,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region ap-northeast-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.ap-northeast-1.amazonaws.com"
      }
    },
    "params": {
      "Region": "ap-northeast-1",
      "UseFIPS": false,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region ap-northeast-2 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.ap-northeast-2.amazonaws.com"
      }
    },
    "params": {
      "Region": "ap-northeast-2",
      "UseFIPS": false,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region ap-northeast-3 with FIPS disabled and DualStack disabled",
    "expect": {

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        "endpoint": {
            "url": "https://license-manager.ap-northeast-3.amazonaws.com"
        }
    },
    "params": {
        "Region": "ap-northeast-3",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region ap-south-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.ap-south-1.amazonaws.com"
        }
    },
    "params": {
        "Region": "ap-south-1",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region ap-southeast-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.ap-southeast-1.amazonaws.com"
        }
    }
},
{
    "params": {
        "Region": "ap-southeast-1",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region ap-southeast-2 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.ap-southeast-2.amazonaws.com"
        }
    },
    "params": {
        "Region": "ap-southeast-2",
        "UseFIPS": false,

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        "UseDualStack": false
    }
},
{
    "documentation": "For region ap-southeast-3 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.ap-southeast-3.amazonaws.com"
        }
    },
    "params": {
        "Region": "ap-southeast-3",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region ca-central-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.ca-central-1.amazonaws.com"
        }
    },
    "params": {
        "Region": "ca-central-1",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region eu-central-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.eu-central-1.amazonaws.com"
        }
    },
    "params": {
        "Region": "eu-central-1",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region eu-north-1 with FIPS
disabled and DualStack disabled",
    "expect": {

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        "endpoint": {
            "url": "https://license-manager.eu-north-1.amazonaws.com"
        }
    },
    "params": {
        "Region": "eu-north-1",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region eu-south-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.eu-south-1.amazonaws.com"
        }
    },
    "params": {
        "Region":
"eu-south-1",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region eu-west-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.eu-west-1.amazonaws.com"
        }
    },
    "params": {
        "Region": "eu-west-1",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region eu-west-2 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.eu-west-2.amazonaws.com"
        }
    },
    "params": {
        "Region": "eu-west-2",
        "UseFIPS": false,

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        "UseDualStack": false
    }
},
{
    "documentation": "For region eu-west-3 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.eu-west-3.amazonaws.com"
        }
    },
    "params": {
        "Region": "eu-west-3",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region me-south-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.me-south-1.amazonaws.com"
        }
    },
    "params": {
        "Region": "me-south-1",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region sa-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.sa-east-1.amazonaws.com"
        }
    },
    "params": {
        "Region": "sa-east-1",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.us-east-1.amazonaws.com"
        }
    },
    "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false
    }
}
}

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```

    }
  },
  "params": {
    "Region": "us-east-1",
    "UseFIPS": false,
    "UseDualStack": false
  }
},
{
  "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager-fips.us-east-1.amazonaws.com"
    }
  },
  "params": {
    "Region": "us-east-1",
    "UseFIPS": true,
    "UseDualStack": false
  }
},
{
  "documentation": "For region us-east-2 with FIPS disabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager.us-east-2.amazonaws.com"
    }
  },
  "params": {
    "Region": "us-east-2",
    "UseFIPS": false,
    "UseDualStack": false
  }
},
{
  "documentation": "For region us-east-2 with FIPS enabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager-fips.us-east-2.amazonaws.com"
    }
  },
  "params": {
    "Region": "us-east-2",
    "UseFIPS": true,
    "UseDualStack": false
  }
}

```

```

    },
    {
      "documentation": "For region
us-west-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-west-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-west-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-west-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-west-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-west-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-west-2 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-west-2.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-west-2",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-west-2 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-west-2.amazonaws.com"

```

```

    }
  },
  "params": {
    "Region": "us-west-2",
    "UseFIPS": true,
    "UseDualStack": false
  }
},
{
  "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager-fips.us-east-1.api.aws"
    }
  },
  "params": {
    "Region": "us-east-1",
    "UseFIPS": true,

    "UseDualStack": true
  }
},
{
  "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager.us-east-1.api.aws"
    }
  },
  "params": {
    "Region": "us-east-1",
    "UseFIPS": false,
    "UseDualStack": true
  }
},
{
  "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url":
"https://license-manager.cn-north-1.amazonaws.com.cn"
    }
  },
  "params": {
    "Region": "cn-north-1",
    "UseFIPS": false,
    "UseDualStack": false
  }
}

```

```

    },
    {
      "documentation": "For region cn-northwest-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.cn-northwest-1.amazonaws.com.cn"
        }
      },
      "params": {
        "Region": "cn-northwest-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    }
  ],
  {
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.cn-north-1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.cn-north-1.amazonaws.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.cn-north-1.api.amazonwebservices.com.cn"
        }
      },
    },
  ],

```

```

    "params": {
      "Region": "cn-north-1",
      "UseFIPS": false,
      "UseDualStack": true
    }
  },

{
  "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager.us-gov-east-1.amazonaws.com"
    }
  },
  "params": {
    "Region": "us-gov-east-1",
    "UseFIPS": false,
    "UseDualStack": false
  }
},
{
  "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager-fips.us-gov-east-1.amazonaws.com"
    }
  },
  "params": {
    "Region": "us-gov-east-1",
    "UseFIPS": true,
    "UseDualStack": false
  }
},
{
  "documentation": "For region us-gov-west-1 with FIPS disabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager.us-gov-west-1.amazonaws.com"
    }
  },
  "params": {
    "Region": "us-gov-west-1",
    "UseFIPS": false,
    "UseDualStack": false
  }
},
{
  "documentation":

```



```

"For region us-gov-west-1 with FIPS enabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-fips.us-gov-west-1.amazonaws.com"
        }
    },
    "params": {
        "Region": "us-gov-west-1",
        "UseFIPS": true,
        "UseDualStack": false
    }
},
{
    "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-fips.us-gov-east-1.api.aws"
        }
    },
    "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": true,
        "UseDualStack": true
    }
},
{
    "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.us-gov-east-1.api.aws"
        }
    },
    "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": true
    }
},
{
    "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack
disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.us-iso-east-1.c2s.ic.gov"
        }
    },
    "params": {

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        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": false
    }
},
{
    "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
    "expect": {
        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
    },
    "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": true,
        "UseDualStack": true
    }
},
{
    "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-fips.us-iso-east-1.c2s.ic.gov"
        }
    },
    "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": true,
        "UseDualStack": false
    }
},
{
    "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
    "expect": {
        "error": "DualStack is enabled
but this partition does not support DualStack"
    },
    "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": true
    }
},
{
    "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.us-isob-east-1.sc2s.sgov.gov"
        }
    },

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        "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": false
        }
    },

    {
        "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
        "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
        },
        "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": true
        }
    },
    {
        "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager-fips.us-isob-east-1.sc2s.sgov.gov"
            }
        },
    },

    "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": false
    }
},
{
    "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
    "expect": {
        "error": "DualStack is enabled but this partition does not support DualStack"
    },
    "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": true
    }
},
{
    "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
    "expect": {
        "endpoint": {

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        "url": "https://example.com"
    }
},
"params": {
    "Region": "us-east-1",
    "UseFIPS": false,
    "UseDualStack": false,
    "Endpoint": "https://example.com"
}
},
{
    "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
    "expect": {
        "endpoint": {
            "url": "https://example.com"
        }
    },
    "params": {
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
    }
},
{
    "documentation": "For custom endpoint with fips enabled and dualstack disabled",
    "expect": {
        "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
    },
    "params": {
        "Region": "us-east-1",
        "UseFIPS": true,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
    }
},
{
    "documentation": "For custom endpoint with fips disabled and dualstack enabled",
    "expect": {
        "error":
"Invalid Configuration: Dualstack and custom endpoint are not supported"
    },
    "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": true,
        "Endpoint": "https://example.com"
    }
}

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```

        }
      },
      {
        "documentation": "Missing region",
        "expect": {
          "error": "Invalid Configuration: Missing Region"
        }
      }
    ],
    "version": "1.0"
  }
},
"com.amazonaws.licensemanager#AcceptGrant": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanager#AcceptGrantRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanager#AcceptGrantResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    },
    {
      "target": "com.amazonaws.licensemanager#ValidationException"
    }
  ]
},
"traits": {
  "smithy.api#documentation": "<p>Accepts the specified grant.</p>"
}

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```

    }
  },
  "com.amazonaws.licensemanager#AcceptGrantRequest": {
    "type": "structure",
    "members": {
      "GrantArn": {
        "target": "com.amazonaws.licensemanager#Arn",
        "traits": {
          "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
          "smithy.api#required": {}
        }
      }
    }
  },
  "traits": {
    "smithy.api#input": {}
  }
},
"com.amazonaws.licensemanager#AcceptGrantResponse": {
  "type": "structure",
  "members": {
    "GrantArn": {
      "target": "com.amazonaws.licensemanager#Arn",
      "traits": {
        "smithy.api#documentation": "<p>Grant
ARN.</p>"
      }
    }
  },
  "Status": {
    "target": "com.amazonaws.licensemanager#GrantStatus",
    "traits": {
      "smithy.api#documentation": "<p>Grant status.</p>"
    }
  },
  "Version": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Grant version.</p>"
    }
  }
},
"traits": {
  "smithy.api#output": {}
}
},
"com.amazonaws.licensemanager#AccessDeniedException": {
  "type": "structure",
  "members": {
    "Message": {

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```

        "target": "com.amazonaws.licensemanager#Message"
    }
},
"traits": {
    "aws.protocols#awsQueryError": {

"code": "ServiceAccessDenied",
    "httpResponseCode": 401
    },
    "smithy.api#documentation": "<p>Access to resource denied.</p>",
    "smithy.api#error": "client",
    "smithy.api#httpError": 401
    }
},
"com.amazonaws.licensemanager#ActivationOverrideBehavior": {
    "type": "enum",
    "members": {
        "DISTRIBUTED_GRANTS_ONLY": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "DISTRIBUTED_GRANTS_ONLY"
            }
        },
        "ALL_GRANTS_PERMITTED_BY_ISSUER": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "ALL_GRANTS_PERMITTED_BY_ISSUER"
            }
        }
    }
},
"com.amazonaws.licensemanager#AllowedOperation": {

"type": "enum",
    "members": {
        "CREATE_GRANT": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "CreateGrant"
            }
        },
        "CHECKOUT_LICENSE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "CheckoutLicense"
            }
        },
        "CHECKOUT_BORROW_LICENSE": {

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```

        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "CheckoutBorrowLicense"
        }
    },
    "CHECK_IN_LICENSE": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "CheckInLicense"
        }
    },
    "EXTEND_CONSUMPTION_LICENSE":
{
    "target": "smithy.api#Unit",
    "traits": {
        "smithy.api#enumValue": "ExtendConsumptionLicense"
    }
},
    "LIST_PURCHASED_LICENSES": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "ListPurchasedLicenses"
        }
    },
    "CREATE_TOKEN": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "CreateToken"
        }
    }
},
    "com.amazonaws.licensemanager#AllowedOperationList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#AllowedOperation"
        },
        "traits": {
            "smithy.api#length": {
                "min": 1,
                "max":
7
            }
        }
    },
    "com.amazonaws.licensemanager#Arn": {
        "type": "string",
        "traits": {

```



```

    "smithy.api#length": {
      "min": 0,
      "max": 2048
    },
    "smithy.api#pattern": "^arn:aws(-(cn|us-gov|iso-b|iso-c|iso-d))?:[A-Za-z0-9][A-Za-z0-9_/.-]{0,62}:~{0,63}:[A-Za-z0-9_/.-]{0,63}:[A-Za-z0-9_/.-]{0,63}:[A-Za-z0-9][A-Za-z0-9:/+=,~-]{0,1023}$"
  }
},
"com.amazonaws.licensemanager#ArnList": {
  "type": "list",
  "member": {
    "target": "com.amazonaws.licensemanager#Arn"
  }
},
"com.amazonaws.licensemanager#AuthorizationException": {
  "type": "structure",
  "members": {
    "Message": {
      "target": "com.amazonaws.licensemanager#Message"
    }
  },
  "traits": {
    "aws.protocols#awsQueryError":
  {
    "code": "AuthorizationFailure",
    "httpResponseCode": 403
  },
    "smithy.api#documentation": "<p>The Amazon Web Services user account does not have permission to
perform the action. Check the IAM\n      policy associated with this account.</p>",
    "smithy.api#error": "client",
    "smithy.api#httpError": 403
  }
},
"com.amazonaws.licensemanager#AutomatedDiscoveryInformation": {
  "type": "structure",
  "members": {
    "LastRunTime": {
      "target": "com.amazonaws.licensemanager#DateTime",
      "traits": {
        "smithy.api#documentation": "<p>Time that automated discovery last ran.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Describes automated discovery.</p>"
  }
},

```

```

"com.amazonaws.licensemanager#Boolean": {
  "type": "boolean",
  "traits": {
    "smithy.api#default": false
  }
},
"com.amazonaws.licensemanager#BorrowConfiguration": {
  "type": "structure",
  "members": {
    "AllowEarlyCheckIn": {
      "target": "com.amazonaws.licensemanager#BoxBoolean",
      "traits": {
        "smithy.api#documentation": "<p>Indicates whether early check-ins are allowed.</p>",
        "smithy.api#required": {}
      }
    },
    "MaxTimeToLiveInMinutes": {
      "target": "com.amazonaws.licensemanager#BoxInteger",
      "traits": {
        "smithy.api#documentation": "<p>Maximum time for the borrow configuration, in minutes.</p>",
        "smithy.api#required": {}
      }
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
  }
},
"com.amazonaws.licensemanager#BoxBoolean": {
  "type": "boolean"
},
"com.amazonaws.licensemanager#BoxInteger": {
  "type": "integer"
},
"com.amazonaws.licensemanager#BoxLong": {
  "type": "long"
},
"com.amazonaws.licensemanager#CheckInLicense": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanager#CheckInLicenseRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanager#CheckInLicenseResponse"
  },
  "errors": [
    {

```

```

        "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
    }
],
{
    "target": "com.amazonaws.licensemanager#ConflictException"
},
{
    "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
},
{
    "target": "com.amazonaws.licensemanager#RateLimitExceededException"
},
{
    "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
},
{
    "target": "com.amazonaws.licensemanager#ServerInternalException"
},
{
    "target": "com.amazonaws.licensemanager#ValidationException"
}
],
"traits": {
    "smithy.api#documentation": "<p>Checks in the specified license. Check in a license when it is no longer
in use.</p>"
}
},
"com.amazonaws.licensemanager#CheckInLicenseRequest":
{
    "type": "structure",
    "members": {
        "LicenseConsumptionToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License consumption token.</p>",
                "smithy.api#required": {}
            }
        },
        "Beneficiary": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License beneficiary.</p>"
            }
        }
    }
},

```

```

    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#CheckInLicenseResponse": {
    "type": "structure",
    "members": {},
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#CheckoutBorrowLicense":
{
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
      "target": "com.amazonaws.licensemanager#EntitlementNotAllowedException"
    },
    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
      "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
    },
    {
      "target":
"com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#RedirectException"
    },
    {
      "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"

```

```

    },
    {
      "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
    },
    {
      "target": "com.amazonaws.licensemanager#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Checks out the specified license for offline use.</p>"
  }
},
"com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest": {
  "type": "structure",
  "members": {
    {
      "LicenseArn": {
        "target": "com.amazonaws.licensemanager#Arn",
        "traits": {
          "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The license must use the borrow consumption configuration.</p>",
          "smithy.api#required": {}
        }
      },
      "Entitlements": {
        "target": "com.amazonaws.licensemanager#EntitlementDataList",
        "traits": {
          "smithy.api#documentation": "<p>License entitlements. Partial checkouts are not supported.</p>",
          "smithy.api#required": {}
        }
      },
      "DigitalSignatureMethod": {
        "target": "com.amazonaws.licensemanager#DigitalSignatureMethod",
        "traits": {
          "smithy.api#documentation": "<p>Digital signature method. The possible value is JSON Web Signature (JWS) algorithm PS384.\n      For more information, see <a href='\"https://tools.ietf.org/html/rfc7518#section-3.5\">RFC 7518 Digital Signature with RSASSA-PSS</a>.</p>",
          "smithy.api#required": {}
        }
      },
      "NodeId": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Node ID.</p>"
        }
      },
      "CheckoutMetadata": {
        "target": "com.amazonaws.licensemanager#MetadataList",

```

```

        "traits": {
            "smithy.api#documentation": "<p>Information about constraints.</p>"
        }
    },
    "ClientToken": {
        "target": "com.amazonaws.licensemanager#ClientToken",
        "traits": {
            "smithy.api#documentation":
"<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
            "smithy.api#required": {}
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse": {
    "type": "structure",
    "members": {
        "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
        },
        "LicenseConsumptionToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License consumption token.</p>"
            }
        },
        "EntitlementsAllowed":
{
            "target": "com.amazonaws.licensemanager#EntitlementDataList",
            "traits": {
                "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
            }
        },
        "NodeId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Node ID.</p>"
            }
        },
        "SignedToken": {
            "target": "com.amazonaws.licensemanager#SignedToken",
            "traits": {

```

```

        "smithy.api#documentation": "<p>Signed token.</p>"
    },
    "IssuedAt": {
        "target": "com.amazonaws.licensemanager#ISO8601DateTime",
        "traits": {
            "smithy.api#documentation": "<p>Date and time at which the license checkout
is issued.</p>"
        }
    },
    "Expiration": {
        "target": "com.amazonaws.licensemanager#ISO8601DateTime",
        "traits": {
            "smithy.api#documentation": "<p>Date and time at which the license checkout expires.</p>"
        }
    },
    "CheckoutMetadata": {
        "target": "com.amazonaws.licensemanager#MetadataList",
        "traits": {
            "smithy.api#documentation": "<p>Information about constraints.</p>"
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#CheckoutLicense": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#CheckoutLicenseRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#CheckoutLicenseResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
        }
    ]
}

```

```

    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#RedirectException"
    },
    {
      "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
    },
    {
      "target":
"com.amazonaws.licensemanager#ServerInternalException"
    },
    {
      "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
    },
    {
      "target": "com.amazonaws.licensemanager#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Checks out the specified license.</p>\n    <note>\n    <p>If the
account that created the license is the same that is performing the check out, you must\n    specify the account
as the beneficiary.</p>\n    </note>"
  }
},
"com.amazonaws.licensemanager#CheckoutLicenseRequest": {
  "type": "structure",
  "members": {
    "ProductSKU": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Product
SKU.</p>",
        "smithy.api#required": {}
      }
    },
    "CheckoutType": {
      "target": "com.amazonaws.licensemanager#CheckoutType",
      "traits": {
        "smithy.api#documentation": "<p>Checkout type.</p>",
        "smithy.api#required": {}
      }
    }
  },
  "KeyFingerprint": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Key fingerprint identifying the license.</p>",

```



```

        "smithy.api#required": {}
    },
    "Entitlements": {
        "target": "com.amazonaws.licensemanager#EntitlementDataList",
        "traits": {
            "smithy.api#documentation": "<p>License entitlements.</p>",
        }
    },
    "smithy.api#required": {}
},
"ClientToken": {
    "target": "com.amazonaws.licensemanager#ClientToken",
    "traits": {
        "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
        "smithy.api#required": {}
    }
},
"Beneficiary": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
        "smithy.api#documentation": "<p>License beneficiary.</p>"
    }
},
"NodeId": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
        "smithy.api#documentation": "<p>Node ID.</p>"
    }
},
"traits": {
    "smithy.api#input": {}
},
"com.amazonaws.licensemanager#CheckoutLicenseResponse": {
    "type": "structure",
    "members": {
        "CheckoutType": {
            "target": "com.amazonaws.licensemanager#CheckoutType",
            "traits": {
                "smithy.api#documentation": "<p>Checkout type.</p>"
            }
        },
        "LicenseConsumptionToken": {
            "target": "com.amazonaws.licensemanager#String",

```

```

    "traits": {
      "smithy.api#documentation": "<p>License consumption token.</p>"
    }
  },
  "EntitlementsAllowed": {
    "target": "com.amazonaws.licensemanager#EntitlementDataList",
    "traits": {
      "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
    }
  },
  "SignedToken": {
    "target": "com.amazonaws.licensemanager#SignedToken",
    "traits": {
      "smithy.api#documentation": "<p>Signed token.</p>"
    }
  },
  "NodeId": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Node ID.</p>"
    }
  },
  "IssuedAt": {
    "target": "com.amazonaws.licensemanager#ISO8601DateTime",
    "traits": {
      "smithy.api#documentation": "<p>Date and time at which the license checkout is issued.</p>"
    }
  },
  "Expiration": {
    "target": "com.amazonaws.licensemanager#ISO8601DateTime",
    "traits": {
      "smithy.api#documentation": "<p>Date and
time at which the license checkout expires.</p>"
    }
  },
  "LicenseArn": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the checkout license.</p>"
    }
  },
  "traits": {
    "smithy.api#output": {}
  },
  "com.amazonaws.licensemanager#CheckoutType": {
    "type": "enum",

```

```

"members": {
  "PROVISIONAL": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "PROVISIONAL"
    }
  },
  "PERPETUAL": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "PERPETUAL"
    }
  }
},
"com.amazonaws.licensemanager#ClientRequestToken": {
  "type": "string",
  "traits": {
    "smithy.api#length": {
      "min": 1,
      "max": 36
    }
  }
},
"com.amazonaws.licensemanager#ClientToken": {
  "type": "string",
  "traits": {
    "smithy.api#length": {
      "min": 0,
      "max": 2048
    },
    "smithy.api#pattern": "^\\S+$"
  }
},
"com.amazonaws.licensemanager#ConflictException": {
  "type": "structure",
  "members": {
    "Message": {
      "target": "com.amazonaws.licensemanager#Message"
    }
  },
  "traits": {
    "aws.protocols#awsQueryError": {
      "code": "ConflictException",
      "httpResponseCode":

```

409

```

    },
    "smithy.api#documentation": "<p>There was a conflict processing the request. Try your request

```

```

again.</p>",
    "smithy.api#error": "client",
    "smithy.api#httpError": 409
  }
},
"com.amazonaws.licensemanager#ConsumedLicenseSummary": {
  "type": "structure",
  "members": {
    "ResourceType": {
      "target": "com.amazonaws.licensemanager#ResourceType",
      "traits": {
        "smithy.api#documentation": "<p>Resource type of the resource consuming a license.</p>"
      }
    },
    "ConsumedLicenses": {
      "target": "com.amazonaws.licensemanager#BoxLong",
      "traits": {
        "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Details about license consumption.</p>"
  },
  "com.amazonaws.licensemanager#ConsumedLicenseSummaryList": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#ConsumedLicenseSummary"
    }
  },
  "com.amazonaws.licensemanager#ConsumptionConfiguration": {
    "type": "structure",
    "members": {
      "RenewType": {
        "target": "com.amazonaws.licensemanager#RenewType",
        "traits": {
          "smithy.api#documentation": "<p>Renewal frequency.</p>"
        }
      },
      "ProvisionalConfiguration": {
        "target": "com.amazonaws.licensemanager#ProvisionalConfiguration",
        "traits": {
          "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
        }
      },
      "BorrowConfiguration": {

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```

    "target": "com.amazonaws.licensemanager#BorrowConfiguration",
    "traits": {
      "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Details about a consumption configuration.</p>"
  }
},
"com.amazonaws.licensemanager#CreateGrant": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanager#CreateGrantRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanager#CreateGrantResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
      "target":
"com.amazonaws.licensemanager#AuthorizationException"
    },
    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    },
    {
      "target": "com.amazonaws.licensemanager#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Creates a grant for the specified license. A grant shares the use of
license\n      entitlements with a specific Amazon Web Services account, an organization, or an\n
organizational unit (OU). For more
information, see <a href='\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-
licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
  }
}

```

```

    }
  },
  "com.amazonaws.licensemanager#CreateGrantRequest": {
    "type": "structure",
    "members": {
      "ClientToken": {
        "target": "com.amazonaws.licensemanager#ClientToken",
        "traits": {
          "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
          "smithy.api#required": {}
        }
      },
      "GrantName": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Grant name.</p>",
          "smithy.api#required": {}
        }
      }
    }
  },
  "LicenseArn": {
    "target": "com.amazonaws.licensemanager#Arn",
    "traits": {
      "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
      "smithy.api#required": {}
    }
  },
  "Principals": {
    "target": "com.amazonaws.licensemanager#PrincipalArnList",
    "traits": {
      "smithy.api#documentation": "<p>The grant principals. You can specify one of the following as an Amazon Resource Name (ARN):</p>\n      <ul>\n        <li>\n          <p>An Amazon Web Services account, which includes only the account specified.</p>\n        </li>\n      </ul>\n      <p>An organizational unit (OU), which includes all accounts in the OU.</p>\n      <li>\n        <p>An organization, which will include all accounts across your organization.</p>\n      </li>\n    </ul>\n    ",
      "smithy.api#required": {}
    }
  },
  "HomeRegion": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Home Region of the grant.</p>",
      "smithy.api#required": {}
    }
  }
},

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```

    "AllowedOperations": {
      "target": "com.amazonaws.licensemanager#AllowedOperationList",
      "traits": {
        "smithy.api#documentation": "<p>Allowed operations for the grant.</p>",
        "smithy.api#required": {}
      }
    },
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#CreateGrantResponse": {
    "type": "structure",
    "members": {
      "GrantArn": {
        "target": "com.amazonaws.licensemanager#Arn",
        "traits": {
          "smithy.api#documentation": "<p>Grant ARN.</p>"
        }
      },
      "Status": {
        "target": "com.amazonaws.licensemanager#GrantStatus",
        "traits": {
          "smithy.api#documentation": "<p>Grant status.</p>"
        }
      },
      "Version": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Grant version.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#CreateGrantVersion": {
    {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CreateGrantVersionRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#CreateGrantVersionResponse"
      }
    }
  }
}

```

```

"errors": [
  {
    "target": "com.amazonaws.licensemanager#AccessDeniedException"
  },
  {
    "target": "com.amazonaws.licensemanager#AuthorizationException"
  },
  {
    "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
  },
  {
    "target": "com.amazonaws.licensemanager#RateLimitExceededException"
  },
  {
    "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
  },
  {
    "target": "com.amazonaws.licensemanager#ServerInternalException"
  },
  {
    "target": "com.amazonaws.licensemanager#ValidationException"
  }
],
"traits": {
  "smithy.api#documentation": "<p>Creates a new version of the specified grant. For more information, see\n      <a href='\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
  },
  "com.amazonaws.licensemanager#CreateGrantVersionRequest": {
    "type": "structure",
    "members": {
      "ClientToken": {
        "target": "com.amazonaws.licensemanager#ClientToken",
        "traits": {
          "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
        }
      },
      "smithy.api#required": {}
    },
    "GrantArn": {
      "target": "com.amazonaws.licensemanager#Arn",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
        "smithy.api#required": {}
      }
    }
  },

```



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"GrantName": {
  "target": "com.amazonaws.licensemanager#String",
  "traits": {
    "smithy.api#documentation": "<p>Grant name.</p>"
  }
},
"AllowedOperations": {
  "target": "com.amazonaws.licensemanager#AllowedOperationList",
  "traits": {
    "smithy.api#documentation": "<p>Allowed operations for the grant.</p>"
  }
},
"Status": {
  "target": "com.amazonaws.licensemanager#GrantStatus",
  "traits": {
    "smithy.api#documentation": "<p>Grant status.</p>"
  }
},
"StatusReason": {
  "target": "com.amazonaws.licensemanager#StatusReasonMessage",
  "traits": {
    "smithy.api#documentation": "<p>Grant status reason.</p>"
  }
},
"SourceVersion": {
  "target": "com.amazonaws.licensemanager#String",
  "traits": {
    "smithy.api#documentation": "<p>Current version of the grant.</p>"
  }
},
"Options": {
  "target": "com.amazonaws.licensemanager#Options",
  "traits": {
    "smithy.api#documentation": "<p>The options specified for the grant.</p>"
  }
},
"traits": {
  "smithy.api#input": {}
}
},
"com.amazonaws.licensemanager#CreateGrantVersionResponse": {
  "type": "structure",
  "members": {
    "GrantArn": {
      "target": "com.amazonaws.licensemanager#Arn",
      "traits": {
        "smithy.api#documentation": "<p>Grant ARN.</p>"
      }
    }
  }
}

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    }
  },
  "Status": {
    "target": "com.amazonaws.licensemanager#GrantStatus",
    "traits": {
      "smithy.api#documentation": "<p>Grant status.</p>"
    }
  },
  "Version": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>New version of the grant.</p>"
    }
  }
},
"traits":
{
  "smithy.api#output": {}
}
},
"com.amazonaws.licensemanager#CreateLicense": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanager#CreateLicenseRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanager#CreateLicenseResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#RedirectException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    },
    {

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        "target": "com.amazonaws.licensemanager#ValidationException"
    },
    ],
    "traits": {
        "smithy.api#documentation": "<p>Creates a license.</p>"
    }
},
"com.amazonaws.licensemanager#CreateLicenseConfiguration": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Creates a license configuration.</p>\n    <p>A license configuration\nis an abstraction of a customer license agreement that can be\n    consumed and enforced by License Manager.\nComponents include specifications for the license\n    type (licensing by instance, socket, CPU, or vCPU),\nallowed tenancy (shared tenancy, \n    Dedicated Instance, Dedicated Host, or\nall of these), license affinity to host (how long a \n    license must be associated with a host), and the number of\nlicenses purchased and used.</p>"
    }
},
"com.amazonaws.licensemanager#CreateLicenseConfigurationRequest": {
    "type": "structure",
    "members": {
        "Name": {

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    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Name of the license configuration.</p>",
      "smithy.api#required": {}
    }
  },
  "Description": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Description of the license configuration.</p>"
    }
  },
  "LicenseCountingType": {
    "target": "com.amazonaws.licensemanager#LicenseCountingType",
    "traits": {
      "smithy.api#documentation": "<p>Dimension used to track the license inventory.</p>",
      "smithy.api#required": {}
    }
  },
  "LicenseCount": {
    "target": "com.amazonaws.licensemanager#BoxLong",
    "traits": {
      "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
    }
  },
  "LicenseCountHardLimit": {
    "target": "com.amazonaws.licensemanager#BoxBoolean",
    "traits": {
      "smithy.api#documentation": "<p>Indicates whether hard or soft license enforcement is used.
Exceeding a hard limit\n      blocks the launch of new instances.</p>"
    }
  },
  "LicenseRules": {
    "target":
"com.amazonaws.licensemanager#StringList",
    "traits": {
      "smithy.api#documentation": "<p>License rules. The syntax is #name=value (for example,
#allowedTenancy=EC2-DedicatedHost). The available rules \n      vary by dimension, as follows.</p>\n
<ul>\n      <li>\n          <p>\n              <code>Cores</code> dimension: <code>allowedTenancy</code> |\n
              <code>licenseAffinityToHost</code> |\n              <code>maximumCores</code> |
              <code>minimumCores</code>\n          </p>\n          </li>\n          <li>\n              <p>\n                  <code>Instances</code> dimension: <code>allowedTenancy</code> |\n                  <code>maximumCores</code> |
                  <code>minimumCores</code> |\n                  <code>maximumSockets</code> | <code>minimumSockets</code> |\n                  <code>maximumVcpus</code> | <code>minimumVcpus</code>\n              </p>\n          </li>\n          <li>\n              <p>\n                  <code>Sockets</code> dimension: <code>allowedTenancy</code> |\n                  <code>licenseAffinityToHost</code> |\n                  <code>maximumSockets</code> |
                  <code>minimumSockets</code>\n              </p>\n          </li>\n      </ul>"
    }
  }
}

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<code>vCPUs</code> dimension: <code>allowedTenancy</code> | \n
<code>honorVcpuOptimization</code> | \n      <code>maximumVcpus</code> |
<code>minimumVcpus</code>\n      </p>\n      </li>\n      </ul>\n      <p>The unit for
<code>licenseAffinityToHost</code> is days and the range is 1 to 180. The possible \n      values for
<code>allowedTenancy</code> are <code>EC2-Default</code>, <code>EC2-DedicatedHost</code>, and \n
<code>EC2-DedicatedInstance</code>. The possible values for <code>honorVcpuOptimization</code> are \n
<code>True</code> and <code>False</code>.</p>"
    }
  },

  "Tags": {
    "target": "com.amazonaws.licensemanager#TagList",
    "traits": {
      "smithy.api#documentation": "<p>Tags to add to the license configuration.</p>"
    }
  },
  "DisassociateWhenNotFound": {
    "target": "com.amazonaws.licensemanager#BoxBoolean",
    "traits": {
      "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
    }
  },
  "ProductInformationList": {
    "target": "com.amazonaws.licensemanager#ProductInformationList",
    "traits": {
      "smithy.api#documentation": "<p>Product information.</p>"
    }
  },
  "traits": {
    "smithy.api#input": {}
  },
  "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse":
{
  "type": "structure",
  "members": {
    "LicenseConfigurationArn": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#output": {}
  }
}

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    },
    "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Creates a new license conversion task.</p>"
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest": {
      "type": "structure",
      "members": {
        "ResourceArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource you are converting the license type for.</p>",
            "smithy.api#required": {}
          }
        },
        "SourceLicenseContext": {
          "target": "com.amazonaws.licensemanager#LicenseConversionContext",
          "traits": {

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"smithy.api#documentation": "<p>Information that identifies the license type you are converting from. \n\n For the structure of the source license, see Convert a license type using the CLI in the <i>License Manager User Guide</i>.</p>",

"smithy.api#required": {}
}
,
"DestinationLicenseContext":
{
 "target": "com.amazonaws.licensemanager#LicenseConversionContext",
 "traits": {
 "smithy.api#documentation": "<p>Information that identifies the license type you are converting to. For the structure of the destination license, see Convert a license type using the CLI in the <i>License Manager User Guide</i>.</p>",

"smithy.api#required": {}
 }
 }
},
"traits": {
 "smithy.api#input": {}
}
},

"com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse": {
 "type": "structure",
 "members": {
 "LicenseConversionTaskId": {
 "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",

 "traits": {
 "smithy.api#documentation": "<p>The ID of the created license type conversion task.</p>"
 }
 }
},

"traits": {
 "smithy.api#output": {}
}
},
"com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator": {
 "type": "operation",
 "input": {
 "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest"
 },
 "output": {
 "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse"
 },
 "errors": [
 {

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        "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
        "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
    },
    {
        "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
    },
    {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
    },
    {
        "target": "com.amazonaws.licensemanager#ValidationException"
    }
],
"traits": {
    "smithy.api#documentation": "<p>Creates a report generator.</p>"
},
},
"com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest": {
    "type": "structure",
    "members": {
        "ReportGeneratorName":
    {
        "target": "com.amazonaws.licensemanager#ReportGeneratorName",
        "traits": {
            "smithy.api#documentation": "<p>Name of the report generator.</p>",
            "smithy.api#required": {}
        }
    },
    "Type": {
        "target": "com.amazonaws.licensemanager#ReportTypeList",
        "traits": {
            "smithy.api#documentation": "<p>Type of reports to generate. The following report types an be generated:</p>\n    <ul>\n        <li>\n            <p>License configuration report - Reports the number and details of consumed licenses for a license configuration.</p>\n        </li>\n        <li>\n            <p>Resource report - Reports the tracked licenses and resource consumption for a license configuration.</p>\n        </li>\n    </ul>",
            "smithy.api#required": {}
        }
    }
}

```



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    }
  },
  "ReportContext": {
    "target": "com.amazonaws.licensemanager#ReportContext",
    "traits": {
      "smithy.api#documentation": "<p>Defines the type of license configuration the report generator
tracks.</p>",
      "smithy.api#required": {}
    }
  },
  "ReportFrequency": {
    "target": "com.amazonaws.licensemanager#ReportFrequency",
    "traits": {
      "smithy.api#documentation": "<p>Frequency by which reports are generated. Reports can be
generated daily, monthly, or weekly.</p>",
      "smithy.api#required": {}
    }
  },
  "ClientToken": {
    "target": "com.amazonaws.licensemanager#ClientRequestToken",
    "traits": {
      "smithy.api#documentation": "<p>Unique,
case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
      "smithy.api#required": {}
    }
  },
  "Description": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Description of the report generator.</p>"
    }
  },
  "Tags": {
    "target": "com.amazonaws.licensemanager#TagList",
    "traits": {
      "smithy.api#documentation": "<p>Tags to add to the report generator.</p>"
    }
  },
  "traits": {
    "smithy.api#input": {}
  },
  "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse": {
    "type": "structure",
    "members": {
      "LicenseManagerReportGeneratorArn":

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{
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
        "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the new report
generator.</p>"
    }
},
"traits": {
    "smithy.api#output": {}
},
"com.amazonaws.licensemanager#CreateLicenseRequest": {
    "type": "structure",
    "members": {
        "LicenseName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License name.</p>",
                "smithy.api#required": {}
            }
        },
        "ProductName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Product
name.</p>",
                "smithy.api#required": {}
            }
        },
        "ProductSKU": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Product SKU.</p>",
                "smithy.api#required": {}
            }
        },
        "Issuer": {
            "target": "com.amazonaws.licensemanager#Issuer",
            "traits": {
                "smithy.api#documentation": "<p>License issuer.</p>",
                "smithy.api#required": {}
            }
        },
        "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Home Region for the license.</p>",

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    "smithy.api#required": {}
  }
},
"Validity": {
  "target": "com.amazonaws.licensemanager#DatetimeRange",
  "traits": {
    "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-UTC format.</p>",
    "smithy.api#required": {}
  }
},
"Entitlements": {
  "target": "com.amazonaws.licensemanager#EntitlementList",
  "traits": {
    "smithy.api#documentation": "<p>License entitlements.</p>",
    "smithy.api#required": {}
  }
},
"Beneficiary": {
  "target": "com.amazonaws.licensemanager#String",
  "traits": {
    "smithy.api#documentation": "<p>License beneficiary.</p>",
    "smithy.api#required": {}
  }
},
"ConsumptionConfiguration": {
  "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
  "traits": {
    "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional configuration for workloads\n      running with continuous connectivity. Choose a borrow configuration for workloads with offline\n      usage.</p>",
    "smithy.api#required": {}
  }
},
"LicenseMetadata": {
  "target": "com.amazonaws.licensemanager#MetadataList",
  "traits": {
    "smithy.api#documentation": "<p>Information about the license.</p>"
  }
},
"ClientToken": {
  "target": "com.amazonaws.licensemanager#ClientToken",
  "traits": {
    "smithy.api#documentation":
    "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
    "smithy.api#required": {}
  }
}

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    }
  },
  "traits": {
    "smithy.api#input": {}
  }
},
"com.amazonaws.licensemanager#CreateLicenseResponse": {
  "type": "structure",
  "members": {
    "LicenseArn": {
      "target": "com.amazonaws.licensemanager#Arn",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
      }
    },
    "Status": {
      "target": "com.amazonaws.licensemanager#LicenseStatus",
      "traits": {
        "smithy.api#documentation": "<p>License status.</p>"
      }
    },
    "Version": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>License version.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#output": {}
  }
},
"com.amazonaws.licensemanager#CreateLicenseVersion": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanager#CreateLicenseVersionRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanager#CreateLicenseVersionResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanager#AuthorizationException"
    }
  ]
}

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        "target": "com.amazonaws.licensemanager#ConflictException"
    },
    {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
        "target": "com.amazonaws.licensemanager#RedirectException"
    },
    {
        "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
    },
    {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
    },
    {
        "target": "com.amazonaws.licensemanager#ValidationException"
    }
],
"traits": {
    "smithy.api#documentation": "<p>Creates a new version of the specified license.</p>"
}
},
"com.amazonaws.licensemanager#CreateLicenseVersionRequest": {
    "type": "structure",
    "members": {
        "LicenseArn": {
            "target":
"com.amazonaws.licensemanager#Arn",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                "smithy.api#required": {}
            }
        },
        "LicenseName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License name.</p>",
                "smithy.api#required": {}
            }
        },
        "ProductName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Product name.</p>",
                "smithy.api#required": {}
            }
        },
        "Issuer": {

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```

        "target": "com.amazonaws.licensemanager#Issuer",
        "traits":
    {
        "smithy.api#documentation": "<p>License issuer.</p>",
        "smithy.api#required": {}
    }
},
"HomeRegion": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
        "smithy.api#documentation": "<p>Home Region of the license.</p>",
        "smithy.api#required": {}
    }
},
"Validity": {
    "target": "com.amazonaws.licensemanager#DatetimeRange",
    "traits": {
        "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>",
        "smithy.api#required": {}
    }
},
"LicenseMetadata": {
    "target": "com.amazonaws.licensemanager#MetadataList",
    "traits": {
        "smithy.api#documentation": "<p>Information about the license.</p>"
    }
},
"Entitlements": {
    "target": "com.amazonaws.licensemanager#EntitlementList",
    "traits": {
        "smithy.api#documentation": "<p>License entitlements.</p>",
        "smithy.api#required": {}
    }
},
"ConsumptionConfiguration": {
    "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
    "traits": {
        "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional
configuration for workloads\n      running with continuous connectivity. Choose a borrow configuration for
workloads with offline\n      usage.</p>",
        "smithy.api#required": {}
    }
},
"Status": {
    "target": "com.amazonaws.licensemanager#LicenseStatus",
    "traits": {

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```

        "smithy.api#documentation": "<p>License status.</p>",
        "smithy.api#required": {}
    },
    "ClientToken": {
        "target": "com.amazonaws.licensemanager#ClientToken",
        "traits": {
            "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
            "smithy.api#required": {}
        }
    },
    "SourceVersion": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>Current version of the license.</p>"
        }
    },
    "traits": {
        "smithy.api#input": {}
    },
    "com.amazonaws.licensemanager#CreateLicenseVersionResponse": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>License ARN.</p>"
                }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>New version of the license.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanager#LicenseStatus",
                "traits": {
                    "smithy.api#documentation": "<p>License status.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output":

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```

    {}
  },
  "com.amazonaws.licensemanager#CreateToken": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#CreateTokenRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#CreateTokenResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#RedirectException"
      },
      {
        "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      },
      {
        "target": "com.amazonaws.licensemanager#ValidationException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Creates a long-lived token.</p>\n      <p>A refresh token is a JWT token used to get an access token. With an access token,\n      you can call AssumeRoleWithWebIdentity to get role credentials that you can use to \n      call License Manager to manage the specified license.</p>"
    }
  },
  "com.amazonaws.licensemanager#CreateTokenRequest": {
    "type": "structure",
    "members": {
      "LicenseArn": {

```



```

        "target": "com.amazonaws.licensemanager#Arn",
        "traits":
    {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The ARN is mapped to the aud claim of the\n      JWT token.</p>",
        "smithy.api#required": {}
    }
},
"RoleArns": {
    "target": "com.amazonaws.licensemanager#ArnList",
    "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the IAM roles to embed in the token. \n      License Manager does not check whether the roles are in use.</p>"
    }
},
"ExpirationInDays": {
    "target": "com.amazonaws.licensemanager#Integer",
    "traits": {
        "smithy.api#documentation": "<p>Token expiration, in days, counted from token creation. The default is 365 days.</p>"
    }
},
"TokenProperties": {
    "target": "com.amazonaws.licensemanager#MaxSize3StringList",
    "traits": {
        "smithy.api#documentation": "<p>Data specified by the caller to be included in the JWT token. The data is mapped\n      to the amr claim of the JWT token.</p>"
    }
},
"ClientToken": {
    "target": "com.amazonaws.licensemanager#ClientToken",
    "traits": {
        "smithy.api#documentation": "<p>Idempotency token, valid for 10 minutes.</p>",
        "smithy.api#required": {}
    }
}
},
"traits": {
    "smithy.api#input": {}
}
},
"com.amazonaws.licensemanager#CreateTokenResponse": {
    "type": "structure",
    "members": {
        "TokenId": {
            "target": "com.amazonaws.licensemanager#String",

```

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    "traits": {
      "smithy.api#documentation": "<p>Token ID.</p>"
    }
  },
  "TokenType": {
    "target": "com.amazonaws.licensemanager#TokenType",
    "traits": {
      "smithy.api#documentation": "<p>Token type.</p>"
    }
  },
  "Token": {
    "target": "com.amazonaws.licensemanager#TokenString",
    "traits": {
      "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>"
    }
  },
  "traits": {
    "smithy.api#output": {}
  }
},
"com.amazonaws.licensemanager#DateTime": {
  "type": "timestamp"
},
"com.amazonaws.licensemanager#DatetimeRange": {
  "type": "structure",
  "members": {
    "Begin": {
      "target": "com.amazonaws.licensemanager#ISO8601DateTime",
      "traits": {
        "smithy.api#documentation": "<p>Start of the time range.</p>",
        "smithy.api#required": {}
      }
    },
    "End": {
      "target": "com.amazonaws.licensemanager#ISO8601DateTime",
      "traits": {
        "smithy.api#documentation": "<p>End of the time range.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Describes a time range, in ISO8601-UTC format.</p>"
  }
},
"com.amazonaws.licensemanager#DeleteGrant": {
  "type": "operation",
  "input": {

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    "target": "com.amazonaws.licensemanager#DeleteGrantRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanager#DeleteGrantResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    },
    {
      "target": "com.amazonaws.licensemanager#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Deletes
the specified grant.</p>"
  }
},
"com.amazonaws.licensemanager#DeleteGrantRequest": {
  "type": "structure",
  "members": {
    "GrantArn": {
      "target": "com.amazonaws.licensemanager#Arn",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
        "smithy.api#required": {}
      }
    },
    "StatusReason": {
      "target": "com.amazonaws.licensemanager#StatusReasonMessage",
      "traits": {
        "smithy.api#documentation": "<p>The Status reason for the delete request.</p>"
      }
    }
  }
}

```

```

    },
    "Version": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Current version of the
grant.</p>",
        "smithy.api#required": {}
      }
    },
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#DeleteGrantResponse": {
    "type": "structure",
    "members": {
      "GrantArn": {
        "target": "com.amazonaws.licensemanager#Arn",
        "traits": {
          "smithy.api#documentation": "<p>Grant ARN.</p>"
        }
      },
      "Status": {
        "target": "com.amazonaws.licensemanager#GrantStatus",
        "traits": {
          "smithy.api#documentation": "<p>Grant status.</p>"
        }
      }
    },
    "Version": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation":
"<p>Grant version.</p>"
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#DeleteLicense": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#DeleteLicenseRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#DeleteLicenseResponse"
    }
  }
}

```

```

    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#ConflictException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      }
    ],
    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#RedirectException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    },
    {
      "target": "com.amazonaws.licensemanager#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Deletes the specified license.</p>"
  }
},
"com.amazonaws.licensemanager#DeleteLicenseConfiguration": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanager#AuthorizationException"
    },

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    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Deletes the specified license configuration.</p>\n    <p>You cannot delete a license configuration that is in use.</p>"
  },
  "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest": {
    "type": "structure",
    "members": {
      "LicenseConfigurationArn": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>ID of the license configuration.</p>",
          "smithy.api#required": {}
        }
      }
    },
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse": {
    "type": "structure",
    "members": {},
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse"
    },
    "errors": [
      {

```

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        "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
        "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
    },
    {
        "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
    },
    {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
    },
    {
        "target": "com.amazonaws.licensemanager#ValidationException"
    }
],
"traits": {
    "smithy.api#documentation": "<p>Deletes the specified report generator.</p>\n    <p>This action deletes the report generator, which stops it from generating future reports.\n    The action cannot be reversed. It has no effect on the previous reports from this generator.</p>"
}
},
"com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest": {
    "type": "structure",
    "members": {
        "LicenseManagerReportGeneratorArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to be deleted.</p>",
                "smithy.api#required": {}
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse": {

```

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    "type": "structure",
    "members": {},
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#DeleteLicenseRequest": {
    "type": "structure",
    "members": {
      "LicenseArn": {
        "target": "com.amazonaws.licensemanager#Arn",
        "traits": {
          "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
          "smithy.api#required": {}
        }
      },
      "SourceVersion": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Current version of the license.</p>",
          "smithy.api#required": {}
        }
      }
    },
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#DeleteLicenseResponse": {
    "type": "structure",
    "members": {
      "Status": {
        "target": "com.amazonaws.licensemanager#LicenseDeletionStatus",
        "traits": {
          "smithy.api#documentation": "<p>License status.</p>"
        }
      },
      "DeletionDate": {
        "target": "com.amazonaws.licensemanager#ISO8601DateTime",
        "traits": {
          "smithy.api#documentation": "<p>Date when the license is deleted.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  }
}

```



```

    },
    "com.amazonaws.licensemanager#DeleteToken": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#DeleteTokenRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#DeleteTokenResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#RedirectException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Deletes the specified token. Must be called in the license home  
Region.</p>"
      }
    },
    "com.amazonaws.licensemanager#DeleteTokenRequest": {
      "type": "structure",
      "members": {
        "TokenId": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token ID.</p>",
            "smithy.api#required": {}
          }
        }
      }
    }
  }

```

```

    },
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#DeleteTokenResponse": {
    "type": "structure",
    "members": {},
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#DigitalSignatureMethod": {
    "type": "enum",
    "members": {
      "JWT_PS384": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "JWT_PS384"
        }
      }
    }
  },
  "com.amazonaws.licensemanager#Entitlement": {
    "type": "structure",
    "members": {
      "Name": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Entitlement name.</p>",
          "smithy.api#required": {}
        }
      },
      "Value": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Entitlement resource. Use only if the unit is None.</p>"
        }
      },
      "MaxCount": {
        "target": "com.amazonaws.licensemanager#Long",
        "traits": {
          "smithy.api#documentation": "<p>Maximum entitlement count. Use if the unit is not None.</p>"
        }
      },
      "Overage": {

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        "target": "com.amazonaws.licensemanager#BoxBoolean",
        "traits": {
            "smithy.api#documentation": "<p>Indicates whether overages are allowed.</p>"
        }
    },
    "Unit": {
        "target": "com.amazonaws.licensemanager#EntitlementUnit",
        "traits": {
            "smithy.api#documentation": "<p>Entitlement unit.</p>",
            "smithy.api#required": {}
        }
    },
    "AllowCheckIn": {
        "target":
"com.amazonaws.licensemanager#BoxBoolean",
        "traits": {
            "smithy.api#documentation": "<p>Indicates whether check-ins are allowed.</p>"
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Describes a resource entitled for use with a license.</p>"
    },
    "com.amazonaws.licensemanager#EntitlementData": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Entitlement data name.</p>",
                    "smithy.api#required": {}
                }
            },
            "Value": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Entitlement
data value.</p>"
                }
            }
        },
        "Unit": {
            "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
            "traits": {
                "smithy.api#documentation": "<p>Entitlement data unit.</p>",
                "smithy.api#required": {}
            }
        }
    }
}

```

```

    },
    "traits": {
      "smithy.api#documentation": "<p>Data associated with an entitlement resource.</p>"
    }
  },
  "com.amazonaws.licensemanager#EntitlementDataList": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#EntitlementData"
    }
  },
  "com.amazonaws.licensemanager#EntitlementDataUnit": {
    "type": "enum",
    "members": {
      "COUNT": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Count"
        }
      },
      "NONE": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "None"
        }
      },
      "SECONDS": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Seconds"
        }
      },
      "MICROSECONDS": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Microseconds"
        }
      },
      "MILLISECONDS": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Milliseconds"
        }
      },
      "BYTES": {
        "target": "smithy.api#Unit",

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        "traits": {
            "smithy.api#enumValue": "Bytes"
        }
    },
    "KILOBYTES": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "Kilobytes"
        }
    },
    "MEGABYTES": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "Megabytes"
        }
    },
    "GIGABYTES": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "Gigabytes"
        }
    },
    "TERABYTES": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "Terabytes"
        }
    },
    "BITS":
{
    "target": "smithy.api#Unit",
    "traits": {
        "smithy.api#enumValue": "Bits"
    }
},
    "KILOBITS": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "Kilobits"
        }
    },
    "MEGABITS": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "Megabits"
        }
    },
    "GIGABITS": {

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```

        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "Gigabits"
        }
    },
    "TERABITS": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "Terabits"
        }
    }
},
"PERCENT": {
    "target": "smithy.api#Unit",
    "traits": {
        "smithy.api#enumValue": "Percent"
    }
},
"BYTES_PER_SECOND": {
    "target": "smithy.api#Unit",
    "traits": {
        "smithy.api#enumValue": "Bytes/Second"
    }
},
"KILOBYTES_PER_SECOND": {
    "target": "smithy.api#Unit",
    "traits": {
        "smithy.api#enumValue": "Kilobytes/Second"
    }
},
"MEGABYTES_PER_SECOND": {
    "target": "smithy.api#Unit",
    "traits": {
        "smithy.api#enumValue": "Megabytes/Second"
    }
},
"GIGABYTES_PER_SECOND": {
    "target": "smithy.api#Unit",
    "traits": {
        "smithy.api#enumValue": "Gigabytes/Second"
    }
},
"TERABYTES_PER_SECOND": {
    "target": "smithy.api#Unit",
    "traits": {
        "smithy.api#enumValue": "Terabytes/Second"
    }
},

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```

"BITS_PER_SECOND": {
  "target": "smithy.api#Unit",
  "traits": {
    "smithy.api#enumValue": "Bits/Second"
  }
},
"KILOBITS_PER_SECOND": {
  "target": "smithy.api#Unit",
  "traits": {
    "smithy.api#enumValue": "Kilobits/Second"
  }
},
"MEGABITS_PER_SECOND": {
  "target": "smithy.api#Unit",
  "traits": {
    "smithy.api#enumValue":
"Megabits/Second"
  }
},
"GIGABITS_PER_SECOND": {
  "target": "smithy.api#Unit",
  "traits": {
    "smithy.api#enumValue": "Gigabits/Second"
  }
},
"TERABITS_PER_SECOND": {
  "target": "smithy.api#Unit",
  "traits": {
    "smithy.api#enumValue": "Terabits/Second"
  }
},
"COUNT_PER_SECOND": {
  "target": "smithy.api#Unit",
  "traits": {
    "smithy.api#enumValue": "Count/Second"
  }
}
},
"com.amazonaws.licensemanager#EntitlementList": {
  "type": "list",
  "member": {
    "target": "com.amazonaws.licensemanager#Entitlement"
  }
},
"com.amazonaws.licensemanager#EntitlementNotAllowedException":
{
  "type": "structure",

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"members": {
  "Message": {
    "target": "com.amazonaws.licensemanager#Message"
  }
},
"traits": {
  "smithy.api#documentation": "<p>The entitlement is not allowed.</p>",
  "smithy.api#error": "client",
  "smithy.api#httpError": 400
}
},
"com.amazonaws.licensemanager#EntitlementUnit": {
  "type": "enum",
  "members": {
    "COUNT": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Count"
      }
    },
    "NONE": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "None"
      }
    },
    "SECONDS": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Seconds"
      }
    },
    "MICROSECONDS": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Microseconds"
      }
    },
    "MILLISECONDS": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Milliseconds"
      }
    },
    "BYTES": {
      "target": "smithy.api#Unit",
      "traits": {

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```

        "smithy.api#enumValue": "Bytes"
    }
},
"KILOBYTES": {
    "target": "smithy.api#Unit",
    "traits": {
        "smithy.api#enumValue": "Kilobytes"
    }
},
"MEGABYTES": {
    "target": "smithy.api#Unit",
    "traits": {
        "smithy.api#enumValue": "Megabytes"
    }
},
"GIGABYTES": {
    "target": "smithy.api#Unit",
    "traits": {
        "smithy.api#enumValue": "Gigabytes"
    }
},
"TERABYTES": {
    "target": "smithy.api#Unit",
    "traits": {
        "smithy.api#enumValue": "Terabytes"
    }
},
"BITS": {
    "target": "smithy.api#Unit",
    "traits": {
        "smithy.api#enumValue": "Bits"
    }
},
"KILOBITS": {
    "target": "smithy.api#Unit",
    "traits": {
        "smithy.api#enumValue": "Kilobits"
    }
},
"MEGABITS": {
    "target": "smithy.api#Unit",
    "traits": {
        "smithy.api#enumValue": "Megabits"
    }
},
"GIGABITS": {
    "target": "smithy.api#Unit",

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```

    "traits": {
      "smithy.api#enumValue": "Gigabits"
    }
  },
  "TERABITS": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Terabits"
    }
  },
  "PERCENT": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Percent"
    }
  },
  "BYTES_PER_SECOND": {
    "target":
"smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Bytes/Second"
    }
  },
  "KILOBYTES_PER_SECOND": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Kilobytes/Second"
    }
  },
  "MEGABYTES_PER_SECOND": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Megabytes/Second"
    }
  },
  "GIGABYTES_PER_SECOND": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Gigabytes/Second"
    }
  },
  "TERABYTES_PER_SECOND": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Terabytes/Second"
    }
  },

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"BITS_PER_SECOND": {
  "target": "smithy.api#Unit",
  "traits": {
    "smithy.api#enumValue": "Bits/Second"
  }
},
"KILOBITS_PER_SECOND": {
  "target": "smithy.api#Unit",
  "traits": {
    "smithy.api#enumValue": "Kilobits/Second"
  }
},
"MEGABITS_PER_SECOND": {
  "target": "smithy.api#Unit",
  "traits": {
    "smithy.api#enumValue": "Megabits/Second"
  }
},
"GIGABITS_PER_SECOND": {
  "target": "smithy.api#Unit",
  "traits": {
    "smithy.api#enumValue": "Gigabits/Second"
  }
},

"TERABITS_PER_SECOND": {
  "target": "smithy.api#Unit",
  "traits": {
    "smithy.api#enumValue": "Terabits/Second"
  }
},
"COUNT_PER_SECOND": {
  "target": "smithy.api#Unit",
  "traits": {
    "smithy.api#enumValue": "Count/Second"
  }
}
},
"com.amazonaws.licensemanager#EntitlementUsage": {
  "type": "structure",
  "members": {
    "Name": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Entitlement usage name.</p>",
        "smithy.api#required": {}
      }
    }
  }
}

```

```

    },
    "ConsumedValue": {
      "target": "com.amazonaws.licensemanager#String",

      "traits": {
        "smithy.api#documentation": "<p>Resource usage consumed.</p>",
        "smithy.api#required": {}
      }
    },
    "MaxCount": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Maximum entitlement usage count.</p>"
      }
    },
    "Unit": {
      "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
      "traits": {
        "smithy.api#documentation": "<p>Entitlement usage unit.</p>",
        "smithy.api#required": {}
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>Usage associated with an entitlement resource.</p>"
    }
  },
  "com.amazonaws.licensemanager#EntitlementUsageList":
  {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#EntitlementUsage"
    }
  },
  "com.amazonaws.licensemanager#ExtendLicenseConsumption": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      }
    ]
  }
}

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    },
    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    },
    {
      "target": "com.amazonaws.licensemanager#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Extends the expiration date for license consumption.</p>"
  }
},
"com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest": {
  "type": "structure",
  "members": {
    "LicenseConsumptionToken": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>License consumption token.</p>",
        "smithy.api#required": {}
      }
    }
  },
  "DryRun": {
    "target": "com.amazonaws.licensemanager#Boolean",
    "traits": {
      "smithy.api#default": false,
      "smithy.api#documentation": "<p>Checks whether you have the required permissions for the action, without actually making the request. Provides an error response if you do not have the required permissions.</p>"
    }
  }
},
"traits": {
  "smithy.api#input": {}
}
},
"com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse": {
  "type": "structure",
  "members": {

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"LicenseConsumptionToken": {
  "target": "com.amazonaws.licensemanager#String",
  "traits": {
    "smithy.api#documentation": "<p>License consumption token.</p>"
  }
},

"Expiration": {
  "target": "com.amazonaws.licensemanager#ISO8601DateTime",
  "traits": {
    "smithy.api#documentation": "<p>Date and time at which the license consumption expires.</p>"
  }
},

"traits": {
  "smithy.api#output": {}
}
},

"com.amazonaws.licensemanager#FailedDependencyException": {
  "type": "structure",
  "members": {
    "Message": {
      "target": "com.amazonaws.licensemanager#Message"
    },
    "ErrorCode": {
      "target": "com.amazonaws.licensemanager#String"
    }
  },
  "traits": {
    "aws.protocols#awsQueryError": {
      "code": "FailedDependency",
      "httpResponseCode": 424
    },
    "smithy.api#documentation":
"<p>A dependency required to run the API is missing.</p>",
    "smithy.api#error": "client",
    "smithy.api#httpError": 424
  }
},

"com.amazonaws.licensemanager#Filter": {
  "type": "structure",
  "members": {
    "Name": {
      "target": "com.amazonaws.licensemanager#FilterName",
      "traits": {
        "smithy.api#documentation": "<p>Name of the filter. Filter names are case-sensitive.</p>"
      }
    }
  },

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    "Values": {
      "target": "com.amazonaws.licensemanager#FilterValues",
      "traits": {
        "smithy.api#documentation": "<p>The value of the filter, which is case-sensitive. You can only
specify one value for the filter.</p>"
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>A filter
name and value pair that is used to return more specific results from a\n      describe operation. Filters can be used
to match a set of resources by specific criteria,\n      such as tags, attributes, or IDs.</p>"
    }
  },
  "com.amazonaws.licensemanager#FilterLimitExceededException": {
    "type": "structure",
    "members": {
      "Message": {
        "target": "com.amazonaws.licensemanager#Message"
      }
    },
    "traits": {
      "aws.protocols#awsQueryError": {
        "code": "FilterLimitExceeded",
        "httpResponseCode": 400
      },
      "smithy.api#documentation": "<p>The request uses too many filters or too many filter values.</p>",
      "smithy.api#error": "client",
      "smithy.api#httpError": 400
    }
  },
  "com.amazonaws.licensemanager#FilterList": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#Filter"
    }
  },
  "com.amazonaws.licensemanager#FilterName": {
    "type": "string"
  },
  "com.amazonaws.licensemanager#FilterValue": {
    "type": "string"
  },
  "com.amazonaws.licensemanager#FilterValues": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#FilterValue",
      "traits": {

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        "smithy.api#xmlName": "item"
    }
}
},
"com.amazonaws.licensemanager#Filters": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#Filter",
        "traits": {
            "smithy.api#xmlName": "item"
        }
    }
},
"com.amazonaws.licensemanager#GetAccessToken": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#GetAccessTokenRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#GetAccessTokenResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Gets a temporary access token to use with
AssumeRoleWithWebIdentity. Access
tokens\n      are valid for one hour.</p>"
    }
},
"com.amazonaws.licensemanager#GetAccessTokenRequest": {
    "type": "structure",
    "members": {
        "Token": {

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        "target": "com.amazonaws.licensemanager#TokenString",
        "traits": {
            "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>",
            "smithy.api#required": {}
        }
    },
    "TokenProperties": {
        "target": "com.amazonaws.licensemanager#MaxSize3StringList",
        "traits": {
            "smithy.api#documentation": "<p>Token properties to validate against those present in the JWT
token.</p>"
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#GetAccessTokenResponse":
{
    "type": "structure",
    "members": {
        "AccessToken": {
            "target": "com.amazonaws.licensemanager#TokenString",
            "traits": {
                "smithy.api#documentation": "<p>Temporary access token.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#GetGrant": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#GetGrantRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#GetGrantResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        }
    ]
}

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    },
    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    },
    {
      "target": "com.amazonaws.licensemanager#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Gets detailed information about the specified grant.</p>"
  }
},
"com.amazonaws.licensemanager#GetGrantRequest": {
  "type": "structure",
  "members": {
    "GrantArn": {
      "target": "com.amazonaws.licensemanager#Arn",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
        "smithy.api#required": {}
      }
    },
    "Version": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Grant version.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#input": {}
  }
},
"com.amazonaws.licensemanager#GetGrantResponse": {
  "type": "structure",
  "members": {
    "Grant": {
      "target": "com.amazonaws.licensemanager#Grant",
      "traits": {

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        "smithy.api#documentation": "<p>Grant details.</p>"
    }
}
},
"traits": {

"smithy.api#output": {}
}
},
"com.amazonaws.licensemanager#GetLicense": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
    ],
    {
        "target": "com.amazonaws.licensemanager#ValidationException"
    }
},
"traits": {
    "smithy.api#documentation": "<p>Gets detailed information about the specified license.</p>"
}
},
"com.amazonaws.licensemanager#GetLicenseConfiguration": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseConfigurationRequest"
    },
    "output": {

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    "target": "com.amazonaws.licensemanager#GetLicenseConfigurationResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Gets detailed information about the specified license configuration.</p>"
  }
},
"com.amazonaws.licensemanager#GetLicenseConfigurationRequest": {
  "type": "structure",
  "members": {
    "LicenseConfigurationArn": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>",
        "smithy.api#required": {}
      }
    }
  },
  "traits": {
    "smithy.api#input": {}
  }
},
"com.amazonaws.licensemanager#GetLicenseConfigurationResponse": {
  "type": "structure",
  "members": {
    "LicenseConfigurationId": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Unique ID for the license configuration.</p>"
      }
    }
  }
}

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    }
  },
  "LicenseConfigurationArn": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
    }
  },
  "Name": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Name of the license configuration.</p>"
    }
  },
  "Description": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Description of the license configuration.</p>"
    }
  },
  "LicenseCountingType": {
    "target": "com.amazonaws.licensemanager#LicenseCountingType",
    "traits": {
      "smithy.api#documentation": "<p>Dimension for which the licenses are counted.</p>"
    }
  },
  "LicenseRules": {
    "target": "com.amazonaws.licensemanager#StringList",
    "traits": {
      "smithy.api#documentation": "<p>License rules.</p>"
    }
  },
  "LicenseCount": {
    "target": "com.amazonaws.licensemanager#BoxLong",

    "traits": {
      "smithy.api#documentation": "<p>Number of available licenses.</p>"
    }
  },
  "LicenseCountHardLimit": {
    "target": "com.amazonaws.licensemanager#BoxBoolean",
    "traits": {
      "smithy.api#documentation": "<p>Sets the number of available licenses as a hard limit.</p>"
    }
  },
  "ConsumedLicenses": {
    "target": "com.amazonaws.licensemanager#BoxLong",
    "traits": {

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        "smithy.api#documentation": "<p>Number of licenses assigned to resources.</p>"
    },
    "Status": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>License configuration status.</p>"
        }
    },
},
"OwnerAccountId": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
        "smithy.api#documentation": "<p>Account ID of the owner of the license configuration.</p>"
    }
},
"ConsumedLicenseSummaryList": {
    "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
    "traits": {
        "smithy.api#documentation": "<p>Summaries of the licenses consumed by resources.</p>"
    }
},
"ManagedResourceSummaryList": {
    "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
    "traits": {
        "smithy.api#documentation": "<p>Summaries of the managed resources.</p>"
    }
},
"Tags": {
    "target": "com.amazonaws.licensemanager#TagList",
    "traits": {
        "smithy.api#documentation": "<p>Tags for the license configuration.</p>"
    }
},
"ProductInformationList": {
    "target": "com.amazonaws.licensemanager#ProductInformationList",
    "traits": {
        "smithy.api#documentation": "<p>Product information.</p>"
    }
},
"AutomatedDiscoveryInformation": {
    "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
    "traits": {
        "smithy.api#documentation": "<p>Automated discovery information.</p>"
    }
},
"DisassociateWhenNotFound": {
    "target": "com.amazonaws.licensemanager#BoxBoolean",

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        "traits": {
            "smithy.api#documentation": "<p>When
true, disassociates a resource when software is uninstalled.</p>"
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#GetLicenseConversionTask": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Gets information about the specified license type conversion task.</p>"
    }
},
"com.amazonaws.licensemanager#GetLicenseConversionTaskRequest": {
    "type": "structure",
    "members": {
        "LicenseConversionTaskId": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
            "traits": {
                "smithy.api#documentation": "<p>ID of the license type conversion task to retrieve information
on.</p>",

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        "smithy.api#required": {}
    }
},
"traits": {
    "smithy.api#input": {}
}
},
"com.amazonaws.licensemanager#GetLicenseConversionTaskResponse": {
    "type": "structure",
    "members": {
        "LicenseConversionTaskId": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
            "traits": {
                "smithy.api#documentation": "<p>ID of the license type conversion task.</p>"
            }
        },
        "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the resources the license
conversion task is associated with.</p>"
            }
        },
        "SourceLicenseContext": {
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
                "smithy.api#documentation": "<p>Information
about the license type converted from.</p>"
            }
        },
        "DestinationLicenseContext": {
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
                "smithy.api#documentation": "<p>Information about the license type converted to.</p>"
            }
        },
        "StatusMessage": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
            }
        },
        "Status": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
            "traits": {
                "smithy.api#documentation": "<p>Status of the license type conversion task.</p>"
            }
        }
    }
}

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    },

    "StartTime": {
        "target": "com.amazonaws.licensemanager#DateTime",
        "traits": {
            "smithy.api#documentation": "<p>Time at which the license type conversion task was started .</p>"
        }
    },

    "LicenseConversionTime": {
        "target": "com.amazonaws.licensemanager#DateTime",
        "traits": {
            "smithy.api#documentation": "<p>Amount of time to complete the license type conversion.</p>"
        }
    },

    "EndTime": {
        "target": "com.amazonaws.licensemanager#DateTime",
        "traits": {
            "smithy.api#documentation": "<p>Time at which the license type conversion task was
completed.</p>"
        }
    },

    "traits": {
        "smithy.api#output": {}
    }
},

"com.amazonaws.licensemanager#GetLicenseManagerReportGenerator":
{
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
    ]
}

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    {
      "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    },
    {
      "target": "com.amazonaws.licensemanager#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Gets information about the specified report generator.</p>"
  }
},
"com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest": {
  "type": "structure",
  "members": {
    "LicenseManagerReportGeneratorArn": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>",
        "smithy.api#required":
{}
      }
    }
  },
  "traits": {
    "smithy.api#input": {}
  }
},
"com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse": {
  "type": "structure",
  "members": {
    "ReportGenerator": {
      "target": "com.amazonaws.licensemanager#ReportGenerator",
      "traits": {
        "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license configurations.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#output": {}
  }
}

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```

    },
    "com.amazonaws.licensemanager#GetLicenseRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {

"smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
          "smithy.api#required": {}
        }
      },
      "Version": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>License version.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#GetLicenseResponse": {
    "type": "structure",
    "members": {
      "License": {
        "target": "com.amazonaws.licensemanager#License",
        "traits": {
          "smithy.api#documentation": "<p>License details.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#GetLicenseUsage": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#GetLicenseUsageRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#GetLicenseUsageResponse"
    },
    "errors": [
      {

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        "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
    },
    {

"target": "com.amazonaws.licensemanager#ValidationException"
    }
],
"traits": {
    "smithy.api#documentation": "<p>Gets detailed information about the usage of the specified license.</p>"
}
},
"com.amazonaws.licensemanager#GetLicenseUsageRequest": {
    "type": "structure",
    "members": {
        "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                "smithy.api#required": {}
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#GetLicenseUsageResponse": {
    "type": "structure",
    "members": {
        "LicenseUsage": {
            "target":
"com.amazonaws.licensemanager#LicenseUsage",
            "traits": {
                "smithy.api#documentation": "<p>License usage details.</p>"
            }
        }
    }
}

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    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#GetServiceSettings": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#GetServiceSettingsRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#GetServiceSettingsResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Gets the License Manager settings for the current Region.</p>"
    }
  },
  "com.amazonaws.licensemanager#GetServiceSettingsRequest": {
    "type": "structure",
    "members": {},
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#GetServiceSettingsResponse": {
    "type": "structure",
    "members": {
      "S3BucketArn": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Regional S3 bucket path for storing reports, license trail event data, discovery data,\n      and so on.</p>"
        }
      }
    }
  }
}

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    },
    "SnsTopicArn": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>SNS topic configured to receive notifications from License
Manager.</p>"
      }
    },
    "OrganizationConfiguration": {
      "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
      "traits": {
        "smithy.api#documentation": "<p>Indicates whether Organizations is integrated with License
Manager for\n      cross-account discovery.</p>"
      }
    },
    "EnableCrossAccountsDiscovery": {
      "target": "com.amazonaws.licensemanager#BoxBoolean",
      "traits": {
        "smithy.api#documentation": "<p>Indicates whether cross-account discovery is enabled.</p>"
      }
    }
  },
  "LicenseManagerResourceShareArn": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource share. The License
Manager management account \n      provides member accounts with access to this share.</p>"
    }
  },
  "traits": {
    "smithy.api#output": {}
  }
},
"com.amazonaws.licensemanager#Grant": {
  "type": "structure",
  "members": {
    "GrantArn": {
      "target": "com.amazonaws.licensemanager#Arn",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
        "smithy.api#required": {}
      }
    },
    "GrantName": {

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"target": "com.amazonaws.licensemanager#String",
  "traits": {
    "smithy.api#documentation": "<p>Grant name.</p>",
    "smithy.api#required": {}
  }
},
"ParentArn": {
  "target": "com.amazonaws.licensemanager#Arn",
  "traits": {
    "smithy.api#documentation": "<p>Parent ARN.</p>",
    "smithy.api#required": {}
  }
},
"LicenseArn": {
  "target": "com.amazonaws.licensemanager#Arn",
  "traits": {
    "smithy.api#documentation": "<p>License ARN.</p>",
    "smithy.api#required": {}
  }
},
"GranteePrincipalArn": {
  "target": "com.amazonaws.licensemanager#Arn",
  "traits": {

"smithy.api#documentation": "<p>The grantee principal ARN.</p>",
  "smithy.api#required": {}
  }
},
"HomeRegion": {
  "target": "com.amazonaws.licensemanager#String",
  "traits": {
    "smithy.api#documentation": "<p>Home Region of the grant.</p>",
    "smithy.api#required": {}
  }
},
"GrantStatus": {
  "target": "com.amazonaws.licensemanager#GrantStatus",
  "traits": {
    "smithy.api#documentation": "<p>Grant status.</p>",
    "smithy.api#required": {}
  }
},
"StatusReason": {
  "target": "com.amazonaws.licensemanager#StatusReasonMessage",
  "traits": {
    "smithy.api#documentation": "<p>Grant status reason.</p>"
  }
},

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"Version": {
  "target": "com.amazonaws.licensemanager#String",
  "traits": {
    "smithy.api#documentation": "<p>Grant version.</p>",
    "smithy.api#required": {}
  }
},
"GrantedOperations": {
  "target": "com.amazonaws.licensemanager#AllowedOperationList",
  "traits": {
    "smithy.api#documentation": "<p>Granted operations.</p>",
    "smithy.api#required": {}
  }
},
"Options": {
  "target": "com.amazonaws.licensemanager#Options",
  "traits": {
    "smithy.api#documentation": "<p>The options specified for the grant.</p>"
  }
},
"traits": {
  "smithy.api#documentation":
"<p>Describes a grant.</p>"
}
},
"com.amazonaws.licensemanager#GrantList": {
  "type": "list",
  "member": {
    "target": "com.amazonaws.licensemanager#Grant"
  }
},
"com.amazonaws.licensemanager#GrantStatus": {
  "type": "enum",
  "members": {
    "PENDING_WORKFLOW": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "PENDING_WORKFLOW"
      }
    },
    "PENDING_ACCEPT": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "PENDING_ACCEPT"
      }
    },
    "REJECTED": {

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        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "REJECTED"
        }
    },
    "ACTIVE": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "ACTIVE"
        }
    },
    "FAILED_WORKFLOW": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "FAILED_WORKFLOW"
        }
    },
    "DELETED": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "DELETED"
        }
    },
    "PENDING_DELETE": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "PENDING_DELETE"
        }
    },
    "DISABLED": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "DISABLED"
        }
    },
    "WORKFLOW_COMPLETED": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "WORKFLOW_COMPLETED"
        }
    }
},
"com.amazonaws.licensemanager#GrantedLicense": {
    "type": "structure",
    "members": {

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"LicenseArn": {
  "target": "com.amazonaws.licensemanager#Arn",
  "traits": {
    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
  }
},
"LicenseName": {
  "target": "com.amazonaws.licensemanager#String",
  "traits": {
    "smithy.api#documentation": "<p>License name.</p>"
  }
},
"ProductName": {
  "target": "com.amazonaws.licensemanager#String",
  "traits": {
    "smithy.api#documentation": "<p>Product name.</p>"
  }
},
"ProductSKU": {
  "target": "com.amazonaws.licensemanager#String",
  "traits": {
    "smithy.api#documentation": "<p>Product SKU.</p>"
  }
},
"Issuer": {
  "target": "com.amazonaws.licensemanager#IssuerDetails",
  "traits": {
    "smithy.api#documentation": "<p>Granted license issuer.</p>"
  }
},
"HomeRegion": {
  "target": "com.amazonaws.licensemanager#String",
  "traits": {
    "smithy.api#documentation": "<p>Home Region of the granted license.</p>"
  }
},
>Status": {
  "target": "com.amazonaws.licensemanager#LicenseStatus",
  "traits": {
    "smithy.api#documentation": "<p>Granted license status.</p>"
  }
},
Validity": {
  "target": "com.amazonaws.licensemanager#DatetimeRange",
  "traits": {
    "smithy.api#documentation": "<p>Date and time range during which the granted license is valid, in

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ISO8601-UTC format.</p>"

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    }
  },
  "Beneficiary": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Granted license beneficiary.</p>"
    }
  },
  "Entitlements": {
    "target": "com.amazonaws.licensemanager#EntitlementList",
    "traits": {
      "smithy.api#documentation": "<p>License entitlements.</p>"
    }
  },
  "ConsumptionConfiguration": {
    "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
    "traits": {
      "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
    }
  },
  "LicenseMetadata": {
    "target": "com.amazonaws.licensemanager#MetadataList",
    "traits": {
      "smithy.api#documentation": "<p>Granted license metadata.</p>"
    }
  },
  "CreateTime": {
    "target": "com.amazonaws.licensemanager#ISO8601DateTime",
    "traits": {
      "smithy.api#documentation": "<p>Creation time of the granted license.</p>"
    }
  }
},
"Version": {
  "target": "com.amazonaws.licensemanager#String",
  "traits": {
    "smithy.api#documentation": "<p>Version of the granted license.</p>"
  }
},
"ReceivedMetadata": {
  "target": "com.amazonaws.licensemanager#ReceivedMetadata",
  "traits": {
    "smithy.api#documentation": "<p>Granted license received metadata.</p>"
  }
}
},
"traits": {
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    "smithy.api#documentation": "<p>Describes a license that is granted to a grantee.</p>"
  },
  "com.amazonaws.licensemanager#GrantedLicenseList": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#GrantedLicense"
    }
  },
  "com.amazonaws.licensemanager#ISO8601DateTime": {
    "type": "string",
    "traits": {
      "smithy.api#length": {
        "min": 0,
        "max": 50
      },
      "smithy.api#pattern": "^(?:(?:[1-9][0-9]*)?[0-9]{4})-(1[0-2]|0[1-9])-(3[0-1]|0[1-9]|[1-2][0-9])T(2[0-3]|[0-1][0-9]):([0-5][0-9]):([0-5][0-9])(\\.([0-9]+)?(?:Z|[-+](?:2[0-3]|[0-1][0-9]):[0-5][0-9])+$)"
    }
  },
  "com.amazonaws.licensemanager#Integer": {
    "type": "integer"
  },
  "com.amazonaws.licensemanager#InvalidParameterValueException": {
    "type": "structure",
    "members": {
      "Message": {
        "target": "com.amazonaws.licensemanager#Message"
      }
    },
    "traits": {
      "aws.protocols#awsQueryError": {
        "code": "InvalidParameterValueProvided",
        "httpResponseCode": 400
      },
      "smithy.api#documentation":
        "<p>One or more parameter values are not valid.</p>",
      "smithy.api#error": "client",
      "smithy.api#httpError": 400
    }
  },
  "com.amazonaws.licensemanager#InvalidResourceStateException": {
    "type": "structure",
    "members": {
      "Message": {
        "target": "com.amazonaws.licensemanager#Message"
      }
    }
  }

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    },
    "traits": {
      "aws.protocols#awsQueryError": {
        "code": "InvalidResourceState",
        "httpResponseCode": 400
      },
      "smithy.api#documentation": "<p>License Manager cannot allocate a license to a resource because of its
state. </p>\n      <p>For example, you cannot allocate a license to an instance in the process of shutting\n
down.</p>",
      "smithy.api#error": "client",
      "smithy.api#httpError": 400
    }
  },

  "com.amazonaws.licensemanager#InventoryFilter": {
    "type": "structure",
    "members": {
      "Name": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Name of the filter.</p>",
          "smithy.api#required": {}
        }
      },
      "Condition": {
        "target": "com.amazonaws.licensemanager#InventoryFilterCondition",
        "traits": {
          "smithy.api#documentation": "<p>Condition of the filter.</p>",
          "smithy.api#required": {}
        }
      },
      "Value": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Value of the filter.</p>"
        }
      }
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>An inventory filter.</p>"
  }
},

"com.amazonaws.licensemanager#InventoryFilterCondition": {
  "type": "enum",
  "members": {
    "EQUALS": {
      "target": "smithy.api#Unit",

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    "traits": {
      "smithy.api#enumValue": "EQUALS"
    }
  },
  "NOT_EQUALS": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "NOT_EQUALS"
    }
  },
  "BEGINS_WITH": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "BEGINS_WITH"
    }
  },
  "CONTAINS": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "CONTAINS"
    }
  }
}
},
"com.amazonaws.licensemanager#InventoryFilterList": {
  "type": "list",
  "member": {
    "target": "com.amazonaws.licensemanager#InventoryFilter"
  }
},
"com.amazonaws.licensemanager#Issuer": {
  "type": "structure",
  "members": {
    "Name": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Issuer name.</p>",
        "smithy.api#required": {}
      }
    }
  },
  "SignKey": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS
key must have a key usage
of sign and verify, \n      and support the RSASSA-PSS SHA-256 signing algorithm.</p>"
    }
  }
}

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    },
    "traits": {
      "smithy.api#documentation": "<p>Details about the issuer of a license.</p>"
    }
  },
  "com.amazonaws.licensemanager#IssuerDetails": {
    "type": "structure",
    "members": {
      "Name": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Issuer name.</p>"
        }
      },
      "SignKey": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS
key must have a key usage of sign and verify, \n      and support the RSASSA-PSS SHA-256 signing
algorithm.</p>"
        }
      },
      "KeyFingerprint": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Issuer key fingerprint.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>Details associated with the issuer of a license.</p>"
    }
  },
  "com.amazonaws.licensemanager#License": {
    "type": "structure",
    "members": {
      "LicenseArn": {
        "target": "com.amazonaws.licensemanager#Arn",
        "traits": {
          "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
        }
      },
      "LicenseName": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>License name.</p>"
        }
      }
    }
  }
}

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    },
    "ProductName": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Product name.</p>"
      }
    },
    "ProductSKU": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Product SKU.</p>"
      }
    },
    "Issuer": {
      "target": "com.amazonaws.licensemanager#IssuerDetails",
      "traits": {
        "smithy.api#documentation": "<p>License issuer.</p>"
      }
    },
    "HomeRegion": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Home Region of the license.</p>"
      }
    },
    "Status": {
      "target": "com.amazonaws.licensemanager#LicenseStatus",
      "traits": {
        "smithy.api#documentation": "<p>License status.</p>"
      }
    },
    "Validity": {
      "target": "com.amazonaws.licensemanager#DatetimeRange",
      "traits": {
        "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-UTC format.</p>"
      }
    },
    "Beneficiary": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>License beneficiary.</p>"
      }
    },
    "Entitlements": {

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"target": "com.amazonaws.licensemanager#EntitlementList",
  "traits": {
    "smithy.api#documentation": "<p>License entitlements.</p>"
  }
},
"ConsumptionConfiguration": {
  "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
  "traits": {
    "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
  }
},
"LicenseMetadata": {
  "target": "com.amazonaws.licensemanager#MetadataList",
  "traits": {
    "smithy.api#documentation": "<p>License metadata.</p>"
  }
},
"CreateTime": {
  "target": "com.amazonaws.licensemanager#ISO8601DateTime",
  "traits": {
    "smithy.api#documentation": "<p>License
creation time.</p>"
  }
},
"Version": {
  "target": "com.amazonaws.licensemanager#String",
  "traits": {
    "smithy.api#documentation": "<p>License version.</p>"
  }
},
"traits": {
  "smithy.api#documentation": "<p>Software license that is managed in License Manager.</p>"
},
"com.amazonaws.licensemanager#LicenseConfiguration": {
  "type": "structure",
  "members": {
    "LicenseConfigurationId": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Unique ID of the license configuration.</p>"
      }
    },
    "LicenseConfigurationArn": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
      }
    }
  }
}

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    }
  },
  "Name": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Name of the license configuration.</p>"
    }
  },
  "Description": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Description of the license configuration.</p>"
    }
  },
  "LicenseCountingType": {
    "target": "com.amazonaws.licensemanager#LicenseCountingType",
    "traits": {
      "smithy.api#documentation": "<p>Dimension to use to track the license inventory.</p>"
    }
  },
  "LicenseRules": {
    "target": "com.amazonaws.licensemanager#StringList",
    "traits": {
      "smithy.api#documentation": "<p>License rules.</p>"
    }
  },
  "LicenseCount": {
    "target": "com.amazonaws.licensemanager#BoxLong",
    "traits": {
      "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
    }
  },
  "LicenseCountHardLimit": {
    "target": "com.amazonaws.licensemanager#BoxBoolean",
    "traits": {
      "smithy.api#documentation": "<p>Number of available licenses as a hard limit.</p>"
    }
  },
  "DisassociateWhenNotFound": {
    "target": "com.amazonaws.licensemanager#BoxBoolean",
    "traits": {
      "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
    }
  },
  "ConsumedLicenses": {
    "target": "com.amazonaws.licensemanager#BoxLong",
    "traits": {

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    "smithy.api#documentation": "<p>Number of licenses consumed.</p>"
  },
  "Status": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Status of the license configuration.</p>"
    }
  },
  "OwnerAccountId": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Account ID of the license configuration's owner.</p>"
    }
  },
  "ConsumedLicenseSummaryList": {
    "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
    "traits": {
      "smithy.api#documentation": "<p>Summaries for licenses consumed by various resources.</p>"
    }
  },
  "ManagedResourceSummaryList": {
    "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
    "traits": {
      "smithy.api#documentation": "<p>Summaries for managed resources.</p>"
    }
  },
  "ProductInformationList": {
    "target": "com.amazonaws.licensemanager#ProductInformationList",
    "traits": {
      "smithy.api#documentation": "<p>Product information.</p>"
    }
  },
  "AutomatedDiscoveryInformation": {
    "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
    "traits": {
      "smithy.api#documentation": "<p>Automated discovery information.</p>"
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>A license configuration is an abstraction of a customer license agreement that can be consumed and enforced by License Manager. Components include specifications for the license type (licensing by instance, socket, CPU, or vCPU), allowed tenancy (shared tenancy, \n Dedicated Instance, Dedicated Host, or all of these), host affinity (how long a VM\n must be associated with a host), and the number of licenses purchased and used.</p>"
  }
}

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    }
  },
  "com.amazonaws.licensemanager#LicenseConfigurationAssociation": {
    "type": "structure",
    "members": {
      "ResourceArn": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
        }
      },
      "ResourceType": {
        "target": "com.amazonaws.licensemanager#ResourceType",
        "traits": {
          "smithy.api#documentation": "<p>Type of server resource.</p>"
        }
      },
      "ResourceOwnerId": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>ID of the Amazon Web Services account that owns the resource consuming licenses.</p>"
        }
      },
      "AssociationTime": {
        "target": "com.amazonaws.licensemanager#DateTime",
        "traits": {
          "smithy.api#documentation": "<p>Time when the license configuration was associated with the resource.</p>"
        }
      },
      "AmiAssociationScope": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Scope of AMI associations. The possible value is <code>cross-account</code>.</p>"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes an association with a license configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#LicenseConfigurationAssociations": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociation"
      }
    }
  }
}

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    }
  },
  "com.amazonaws.licensemanager#LicenseConfigurationStatus": {
    "type": "enum",
    "members":
  {
    "AVAILABLE": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "AVAILABLE"
      }
    },
    "DISABLED": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "DISABLED"
      }
    }
  }
},
  "com.amazonaws.licensemanager#LicenseConfigurationUsage": {
    "type": "structure",
    "members": {
      "ResourceArn": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
        }
      },
      "ResourceType": {
        "target": "com.amazonaws.licensemanager#ResourceType",
        "traits":
      {
        "smithy.api#documentation": "<p>Type of resource.</p>"
      }
    },
      "ResourceStatus": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Status of the resource.</p>"
        }
      },
      "ResourceOwnerId": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
        }
      }
    },
  },

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    "AssociationTime": {
      "target": "com.amazonaws.licensemanager#DateTime",
      "traits": {
        "smithy.api#documentation": "<p>Time when the license configuration was initially associated with
the resource.</p>"
      }
    },

    "ConsumedLicenses": {
      "target": "com.amazonaws.licensemanager#BoxLong",
      "traits": {
        "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
      }
    },

    "traits": {
      "smithy.api#documentation": "<p>Details about the usage of a resource associated with a license
configuration.</p>"
    },

    "com.amazonaws.licensemanager#LicenseConfigurationUsageList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#LicenseConfigurationUsage"
      }
    },

    "com.amazonaws.licensemanager#LicenseConfigurations": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#LicenseConfiguration"
      }
    },

    "com.amazonaws.licensemanager#LicenseConversionContext": {

      "type": "structure",
      "members": {
        "UsageOperation": {
          "target": "com.amazonaws.licensemanager#UsageOperation",
          "traits": {
            "smithy.api#documentation": "<p>The Usage operation value that corresponds to the license type you
are converting your resource from. For more information about which platforms correspond to which usage
operation values see <a href='\"https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/billing-info-
fields.html#billing-info\">Sample data: usage operation by platform\\n    </a>\\n    </p>"
          }
        }
      },

      "traits": {
        "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
      }
    }
  }
}

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    }
  },
  "com.amazonaws.licensemanager#LicenseConversionTask": {
    "type": "structure",
    "members": {
      "LicenseConversionTaskId": {

        "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
        "traits": {
          "smithy.api#documentation": "<p>The ID of the license type conversion task.</p>"
        }
      },
      "ResourceArn": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource associated
with the license type\n      conversion task.</p>"
        }
      },
      "SourceLicenseContext": {
        "target": "com.amazonaws.licensemanager#LicenseConversionContext",
        "traits": {
          "smithy.api#documentation": "<p>Information about the license type this conversion task converted
from.</p>"
        }
      },
      "DestinationLicenseContext": {
        "target":
"com.amazonaws.licensemanager#LicenseConversionContext",
        "traits": {
          "smithy.api#documentation": "<p>Information about the license type this conversion task converted
to.</p>"
        }
      },
      "Status": {
        "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
        "traits": {
          "smithy.api#documentation": "<p>The status of the conversion task.</p>"
        }
      },
      "StatusMessage": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
        }
      },
      "StartTime": {
        "target": "com.amazonaws.licensemanager#DateTime",

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        "traits": {
            "smithy.api#documentation":
"<p>The time the conversion task was started at.</p>"
        }
    },
    "LicenseConversionTime": {
        "target": "com.amazonaws.licensemanager#DateTime",
        "traits": {
            "smithy.api#documentation": "<p>The time the usage operation value of the resource was
changed.</p>"
        }
    },
    "EndTime": {
        "target": "com.amazonaws.licensemanager#DateTime",
        "traits": {
            "smithy.api#documentation": "<p>The time the conversion task was completed.</p>"
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
    }
},
"com.amazonaws.licensemanager#LicenseConversionTaskId": {
    "type": "string",
    "traits": {

        "smithy.api#length": {
            "min": 0,
            "max": 50
        },
        "smithy.api#pattern": "^\\p{L}t-[a-zA-Z0-9]*$"
    }
},
"com.amazonaws.licensemanager#LicenseConversionTaskStatus": {
    "type": "enum",
    "members": {
        "IN_PROGRESS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "IN_PROGRESS"
            }
        },
        "SUCCEEDED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "SUCCEEDED"
            }
        }
    }
}

```



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    },
    "FAILED": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "FAILED"
      }
    }
  },
  "com.amazonaws.licensemanager#LicenseConversionTasks":
{
  "type": "list",
  "member": {
    "target": "com.amazonaws.licensemanager#LicenseConversionTask"
  }
},
"com.amazonaws.licensemanager#LicenseCountingType": {
  "type": "enum",
  "members": {
    "VCPU": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "vCPU"
      }
    },
    "INSTANCE": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Instance"
      }
    },
    "CORE": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Core"
      }
    },
    "SOCKET": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Socket"
      }
    }
  }
},
"com.amazonaws.licensemanager#LicenseDeletionStatus": {
  "type": "enum",
  "members": {

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    "PENDING_DELETE": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "PENDING_DELETE"
      }
    },
    "DELETED": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "DELETED"
      }
    }
  },
  "com.amazonaws.licensemanager#LicenseList": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#License"
    }
  },
  "com.amazonaws.licensemanager#LicenseOperationFailure": {

    "type": "structure",
    "members": {
      "ResourceArn": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
        }
      },
      "ResourceType": {
        "target": "com.amazonaws.licensemanager#ResourceType",
        "traits": {
          "smithy.api#documentation": "<p>Resource type.</p>"
        }
      },
      "ErrorMessage": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Error message.</p>"
        }
      },
      "FailureTime": {
        "target": "com.amazonaws.licensemanager#DateTime",
        "traits": {

          "smithy.api#documentation": "<p>Failure time.</p>"
        }
      }
    }
  }

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    },
    "OperationName": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Name of the operation.</p>"
      }
    },
    "ResourceOwnerId": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>ID of the Amazon Web Services account that owns the
resource.</p>"
      }
    },
    "OperationRequestedBy": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>The requester is \"License Manager Automated Discovery\".</p>"
      }
    },
    "MetadataList": {
      "target": "com.amazonaws.licensemanager#MetadataList",
      "traits": {
        "smithy.api#documentation": "<p>Reserved.</p>"
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>Describes the failure of a license operation.</p>"
    },
    "com.amazonaws.licensemanager#LicenseOperationFailureList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#LicenseOperationFailure"
      }
    },
    "com.amazonaws.licensemanager#LicenseSpecification": {
      "type": "structure",
      "members": {
        "LicenseConfigurationArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",

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    "smithy.api#required": {}
  },
  "AmiAssociationScope": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Scope of AMI associations. The possible value is <code>cross-account</code>.</p>"
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Details for associating a license configuration with a resource.</p>"
  },
  "com.amazonaws.licensemanager#LicenseSpecifications": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#LicenseSpecification"
    }
  },
  "com.amazonaws.licensemanager#LicenseStatus": {
    "type": "enum",
    "members": {
      "AVAILABLE": {
        "target": "smithy.api#Unit",

        "traits": {
          "smithy.api#enumValue": "AVAILABLE"
        }
      },
      "PENDING_AVAILABLE": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "PENDING_AVAILABLE"
        }
      },
      "DEACTIVATED": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "DEACTIVATED"
        }
      },
      "SUSPENDED": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "SUSPENDED"
        }
      }
    }
  }
}

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    },
    "EXPIRED": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "EXPIRED"
      }
    },
    "PENDING_DELETE": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "PENDING_DELETE"
      }
    },
    "DELETED": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "DELETED"
      }
    }
  },
  "com.amazonaws.licensemanager#LicenseUsage": {
    "type": "structure",
    "members": {
      "EntitlementUsages": {
        "target": "com.amazonaws.licensemanager#EntitlementUsageList",
        "traits": {
          "smithy.api#documentation": "<p>License entitlement usages.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>Describes the entitlement usage associated with a license.</p>"
    }
  },
  "com.amazonaws.licensemanager#LicenseUsageException": {
    "type": "structure",
    "members": {
      "Message": {
        "target": "com.amazonaws.licensemanager#Message"
      }
    },
    "traits": {
      "aws.protocols#awsQueryError": {
        "code": "LicenseUsageFailure",
        "httpResponseCode": 412
      }
    }
  }
}

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```

    },
    "smithy.api#documentation": "<p>You do not have enough licenses available to support a new resource
launch.</p>",
    "smithy.api#error": "client",
    "smithy.api#httpError": 412
  }
},
"com.amazonaws.licensemanager#ListAssociationsForLicenseConfiguration": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest"
  },
  "output": {

"target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
      "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Lists the resource associations for the
specified license configuration.</p>\n    <p>Resource associations need not consume licenses from a license
configuration. \n    For example, an AMI or a stopped instance might not consume a license (depending on \n
the license rules).</p>"
  }
},
"com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest": {
  "type": "structure",
  "members": {
    "LicenseConfigurationArn": {
      "target": "com.amazonaws.licensemanager#String",

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    "traits": {
      "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a license configuration.</p>",
      "smithy.api#required": {}
    }
  },
  "MaxResults": {
    "target": "com.amazonaws.licensemanager#BoxInteger",
    "traits": {
      "smithy.api#documentation": "<p>Maximum number of results
to return in a single call.</p>"
    }
  },
  "NextToken": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Token for the next set of results.</p>"
    }
  },
  "traits": {
    "smithy.api#input": {}
  }
},
"com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse": {
  "type": "structure",
  "members": {
    "LicenseConfigurationAssociations": {
      "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociations",
      "traits": {
        "smithy.api#documentation": "<p>Information about the associations for the license
configuration.</p>"
      }
    },
    "NextToken": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Token for the next set of results.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#output": {}
  }
},
"com.amazonaws.licensemanager#ListDistributedGrants": {
  "type": "operation",
  "input": {

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    "target": "com.amazonaws.licensemanager#ListDistributedGrantsRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanager#ListDistributedGrantsResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    },
    {
      "target": "com.amazonaws.licensemanager#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Lists the grants distributed for the specified license.</p>"
  }
},
"com.amazonaws.licensemanager#ListDistributedGrantsRequest": {
  "type": "structure",
  "members": {
    "GrantArns": {
      "target": "com.amazonaws.licensemanager#ArnList",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
      }
    },
    "Filters": {
      "target": "com.amazonaws.licensemanager#FilterList",
      "traits": {
        "smithy.api#documentation": "<p>Filters to scope the results. The following filters are supported:</p>\n      <ul>\n        <li>\n          <p>\n            <code>LicenseArn</code>\n          </p>\n        </li>\n        <li>\n          <p>\n            <code>GrantStatus</code>\n          </p>\n        </li>\n      </ul>"
      }
    }
  }
}

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        <li>\n            <p>\n                <code>GranteePrincipalARN</code>\n            </p>\n        </li>\n    </li>\n    <p>\n        <code>ProductSKU</code>\n    </p>\n    </li>\n    <li>\n        <p>\n            <code>LicenseIssuerName</code>\n        </p>\n    </li>\n    </ul>"
    }
},
"NextToken": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
        "smithy.api#documentation": "<p>Token for the next set of results.</p>"
    }
},
"MaxResults": {
    "target": "com.amazonaws.licensemanager#MaxSize100",
    "traits": {
        "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
    }
},
"traits": {
    "smithy.api#input": {}
},
},
"com.amazonaws.licensemanager#ListDistributedGrantsResponse": {
    "type": "structure",
    "members": {
        "Grants": {
            "target": "com.amazonaws.licensemanager#GrantList",

"traits": {
    "smithy.api#documentation": "<p>Distributed grant details.</p>"
}
},
"NextToken": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
        "smithy.api#documentation": "<p>Token for the next set of results.</p>"
    }
},
"traits": {
    "smithy.api#output": {}
},
},
"com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperations": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest"
    }
}

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    },
    "output": {
      "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Lists the license configuration operations that failed.</p>"
    }
  },
  "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest": {
    "type": "structure",
    "members": {
      "LicenseConfigurationArn": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Amazon Resource Name of the license configuration.</p>",
          "smithy.api#required": {}
        }
      },
      "MaxResults": {
        "target": "com.amazonaws.licensemanager#BoxInteger",
        "traits": {
          "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
        }
      },
      "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
      }
    }
  }
}

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```

    },
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse":
  {
    "type": "structure",
    "members": {
      "LicenseOperationFailureList": {
        "target": "com.amazonaws.licensemanager#LicenseOperationFailureList",
        "traits": {
          "smithy.api#documentation": "<p>License configuration operations that failed.</p>"
        }
      },
      "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#ListLicenseConfigurations": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      }
    ]
  }
}

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{
  "target": "com.amazonaws.licensemanager#RateLimitExceededException"
},
{
  "target": "com.amazonaws.licensemanager#ServerInternalException"
}
],
"traits": {
  "smithy.api#documentation": "<p>Lists the license configurations
for your account.</p>"
}
},
"com.amazonaws.licensemanager#ListLicenseConfigurationsRequest": {
  "type": "structure",
  "members": {
    "LicenseConfigurationArns": {
      "target": "com.amazonaws.licensemanager#StringList",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the license
configurations.</p>"
      }
    },
    "MaxResults": {
      "target": "com.amazonaws.licensemanager#BoxInteger",
      "traits": {
        "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
      }
    },
    "NextToken": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Token for the next
set of results.</p>"
      }
    },
    "Filters": {
      "target": "com.amazonaws.licensemanager#Filters",
      "traits": {
        "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n    are supported:</p>\n    <ul>\n      <li>\n        <p>\n          <code>licenseCountingType</code> - The dimension for which licenses are counted.\n          Possible values are
          <code>vCPU</code> | <code>Instance</code> | <code>Core</code> | <code>Socket</code>.\n          Logical
          operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n        </li>\n      <li>\n        <p>\n          <code>enforceLicenseCount</code> - A Boolean value that indicates whether hard license
          enforcement is used. \n          Logical operators are <code>EQUALS</code> |
          <code>NOT_EQUALS</code>.</p>\n        </li>\n      <li>\n        <p>\n          <code>usagelimitExceeded</code> - A Boolean value that
          indicates whether the available licenses have been exceeded. \n          Logical operators are

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<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n      </li>\n    </ul>"
    }
  }
},
"traits": {
  "smithy.api#input": {}
}
},
"com.amazonaws.licensemanager#ListLicenseConfigurationsResponse": {
  "type": "structure",
  "members": {
    "LicenseConfigurations": {
      "target": "com.amazonaws.licensemanager#LicenseConfigurations",
      "traits": {
        "smithy.api#documentation": "<p>Information about the license configurations.</p>"
      }
    },
    "NextToken": {
      "target": "com.amazonaws.licensemanager#String",

      "traits": {
        "smithy.api#documentation": "<p>Token for the next set of results.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#output": {}
  }
},
"com.amazonaws.licensemanager#ListLicenseConversionTasks": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {

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        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
    }
],
"traits": {
    "smithy.api#documentation": "<p>Lists the license type conversion tasks for your account.</p>"
}
},
"com.amazonaws.licensemanager#ListLicenseConversionTasksRequest": {
    "type": "structure",
    "members": {
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        },
        "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
        },
        "Filters": {
            "target": "com.amazonaws.licensemanager#Filters",
            "traits": {
                "smithy.api#documentation": "<p>\n        Filters to scope the results. Valid filters are
<code>ResourceArns</code> and <code>Status</code>.\n    </p>"
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#ListLicenseConversionTasksResponse": {
    "type": "structure",
    "members": {
        "LicenseConversionTasks": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTasks",
            "traits": {
                "smithy.api#documentation": "<p>Information about the license configuration tasks for your
account.</p>"
            }
        }
    },

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    "NextToken": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Token for the next set of results.</p>"
      }
    },
    "traits": {
      "smithy.api#output": {}
    },
    "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target":
"com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists the report generators for your account.</p>"
      }
    }
  }
}

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    }
  },
  "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest":
  {
    "type": "structure",
    "members": {
      "Filters": {
        "target": "com.amazonaws.licensemanager#FilterList",
        "traits": {
          "smithy.api#documentation": "<p>Filters to scope the results. The following filters are supported:
</p>\n      <ul>\n        <li>\n          <p>\n            <code>LicenseConfigurationArn</code>\n          </p>\n        </li>\n      </ul>"
        }
      },
      "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
      },
      "MaxResults": {
        "target": "com.amazonaws.licensemanager#MaxSize100",
        "traits": {
          "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse": {
      "type": "structure",
      "members": {
        "ReportGenerators": {
          "target": "com.amazonaws.licensemanager#ReportGeneratorList",
          "traits": {
            "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license
configurations.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      }
    }
  }
}

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    }
  },
  "traits": {
    "smithy.api#output": {}
  }
},
"com.amazonaws.licensemanager#ListLicenseSpecificationsForResource": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Describes the license configurations for the specified resource.</p>"
  }
},
"com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest": {
  "type": "structure",
  "members": {
    "ResourceArn": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a resource that has an associated license configuration.</p>",
        "smithy.api#required": {}
      }
    },
    "MaxResults": {
      "target": "com.amazonaws.licensemanager#BoxInteger",

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    "traits": {

"smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
    }
  },
  "NextToken": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Token for the next set of results.</p>"
    }
  }
},
"traits": {
  "smithy.api#input": {}
}
},
"com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse": {
  "type": "structure",
  "members": {
    "LicenseSpecifications": {
      "target": "com.amazonaws.licensemanager#LicenseSpecifications",
      "traits": {
        "smithy.api#documentation": "<p>License configurations associated with a resource.</p>"
      }
    },
    "NextToken": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Token for the next set of results.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#output": {}
  }
},
"com.amazonaws.licensemanager#ListLicenseVersions": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanager#ListLicenseVersionsRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanager#ListLicenseVersionsResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
  ],

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    {
      "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Lists all versions of the specified license.</p>"
  }
},
"com.amazonaws.licensemanager#ListLicenseVersionsRequest": {
  "type": "structure",
  "members": {
    "LicenseArn": {
      "target": "com.amazonaws.licensemanager#Arn",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
        "smithy.api#required": {}
      }
    },
    "NextToken": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Token for the next set of results.</p>"
      }
    },
    "MaxResults": {
      "target": "com.amazonaws.licensemanager#MaxSize100",
      "traits": {
        "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#input": {}
  }
},
"com.amazonaws.licensemanager#ListLicenseVersionsResponse": {
  "type": "structure",
  "members": {
    "Licenses": {

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        "target": "com.amazonaws.licensemanager#LicenseList",
        "traits": {
            "smithy.api#documentation": "<p>License details.</p>"
        }
    },

    "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#ListLicenses": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListLicensesRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#ListLicensesResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists the licenses for your account.</p>"
    }
}

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```

    },
    "com.amazonaws.licensemanager#ListLicensesRequest": {
      "type": "structure",
      "members": {
        "LicenseArns": {
          "target": "com.amazonaws.licensemanager#ArnList",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
          }
        }
      },

      "Filters": {
        "target": "com.amazonaws.licensemanager#FilterList",
        "traits": {
          "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n      <ul>\n        <li>\n          <p>\n            <code>Beneficiary</code>\n          </p>\n          </li>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n            </li>\n            <li>\n              <p>\n                <code>Fingerprint</code>\n              </p>\n              </li>\n              <li>\n                <p>\n                  <code>Status</code>\n                </p>\n                </li>\n              </ul>"
        }
      },
      "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Token
for the next set of results.</p>"
        }
      },
      "MaxResults": {
        "target": "com.amazonaws.licensemanager#MaxSize100",
        "traits": {
          "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#ListLicensesResponse": {
    "type": "structure",
    "members": {
      "Licenses": {
        "target": "com.amazonaws.licensemanager#LicenseList",
        "traits": {
          "smithy.api#documentation": "<p>License details.</p>"
        }
      }
    },
  },

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```

    "NextToken": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {

"smithy.api#documentation": "<p>Token for the next set of results.</p>"
      }
    },
    "traits": {
      "smithy.api#output": {}
    },
    "com.amazonaws.licensemanager#ListReceivedGrants": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListReceivedGrantsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListReceivedGrantsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists grants that are received. Received grants are grants created while specifying the\n      recipient as this Amazon Web Services account, your organization, or an organizational unit\n      (OU) to which this member account belongs.</p>"
      }
    }
  }

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```

    },
    "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target":
"com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists the grants received for all accounts in the organization.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the received license.</p>",
            "smithy.api#required": {}
          }
        },
        "Filters": {

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        "target": "com.amazonaws.licensemanager#FilterList",
        "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filters are supported:</p>\n
            <ul>\n                <li>\n                    <p>\n                        <code>ParentArn</code>\n                    </p>\n                </li>\n                <li>\n                    <p>\n                        <code>GranteePrincipalArn</code>\n                    </p>\n                </li>\n            </ul>\n        }
    },
    "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
    },
    "MaxResults": {
        "target": "com.amazonaws.licensemanager#MaxSize100",
        "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse":
{
    "type": "structure",
    "members": {
        "Grants": {
            "target": "com.amazonaws.licensemanager#GrantList",
            "traits": {
                "smithy.api#documentation": "<p>Lists the grants the organization has received.</p>"
            }
        },
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#ListReceivedGrantsRequest": {
    "type": "structure",

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"members": {
  "GrantArns": {
    "target": "com.amazonaws.licensemanager#ArnList",
    "traits": {
      "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
    }
  },
  "Filters": {
    "target": "com.amazonaws.licensemanager#FilterList",
    "traits": {
      "smithy.api#documentation": "<p>Filters to scope the results. The following filters are supported:</p>\n      <ul>\n        <li>\n          <p>\n            <code>ProductSKU</code>\n          </p>\n        </li>\n        <li>\n          <p>\n            <code>LicenseIssuerName</code>\n          </p>\n        </li>\n        <li>\n          <p>\n            <code>LicenseArn</code>\n          </p>\n        </li>\n        <li>\n          <p>\n            <code>GrantStatus</code>\n          </p>\n        </li>\n      </ul>\n      <code>GranterAccountId</code>\n    </p>\n    </li>\n    </ul>"
    }
  },
  "NextToken": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Token for the next set of results.</p>"
    }
  },
  "MaxResults": {
    "target": "com.amazonaws.licensemanager#MaxSize100",
    "traits": {
      "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
    }
  },
  "traits": {
    "smithy.api#input": {}
  },
},
"com.amazonaws.licensemanager#ListReceivedGrantsResponse": {
  "type": "structure",
  "members": {
    "Grants": {
      "target": "com.amazonaws.licensemanager#GrantList",
      "traits": {
        "smithy.api#documentation": "<p>Received grant details.</p>"
      }
    },
    "NextToken": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {

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        "smithy.api#documentation": "<p>Token for the next set of results.</p>"
    }
}
},
"traits": {
    "smithy.api#output": {}
}
},
"com.amazonaws.licensemanager#ListReceivedLicenses": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListReceivedLicensesRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#ListReceivedLicensesResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists received licenses.</p>"
    }
},
"com.amazonaws.licensemanager#ListReceivedLicensesForOrganization":
{
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest"
    }
}

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    },
    "output": {
      "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      },
      {
        "target": "com.amazonaws.licensemanager#ValidationException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Lists the licenses received for all accounts in the organization.</p>"
    }
  },
  "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest": {
    "type": "structure",
    "members": {
      "Filters": {
        "target": "com.amazonaws.licensemanager#FilterList",
        "traits": {
          "smithy.api#documentation": "<p>Filters to scope the results. The following filters are supported:</p>\n      <ul>\n        <li>\n          <p>\n            <code>Beneficiary</code>\n          </p>\n        </li>\n        <li>\n          <p>\n            <code>ProductSKU</code>\n          </p>\n        </li>\n      </ul>"
        }
      },
      "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
      }
    }
  }
}

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    }
  },
  "MaxResults": {
    "target": "com.amazonaws.licensemanager#MaxSize100",
    "traits": {
      "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
    }
  },
  "traits": {
    "smithy.api#input": {}
  }
},
"com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse": {
  "type": "structure",
  "members": {
    "Licenses": {
      "target": "com.amazonaws.licensemanager#GrantedLicenseList",
      "traits": {
        "smithy.api#documentation": "<p>Lists the licenses the organization has received.</p>"
      }
    },
    "NextToken": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Token for the next set of results.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#output": {}
  }
},
"com.amazonaws.licensemanager#ListReceivedLicensesRequest": {
  "type": "structure",
  "members": {
    "LicenseArns": {
      "target": "com.amazonaws.licensemanager#ArnList",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
      }
    }
  },
  "Filters": {
    "target": "com.amazonaws.licensemanager#FilterList",
    "traits": {
      "smithy.api#documentation": "<p>Filters to scope the results. The following filters are supported:</p>\n      <ul>\n        <li>\n          <p>\n            <code>ProductSKU</code>\n          </p>\n"
    }
  }
}

```

```

        </li>\n        <li>\n        <p>\n        <code>Status</code>\n        </p>\n        </li>\n    </li>\n    <p>\n    <code>Fingerprint</code>\n    </p>\n    </li>\n    <li>\n    <p>\n    <code>IssuerName</code>\n    </p>\n    </li>\n    <li>\n    <p>\n    <code>Beneficiary</code>\n    </p>\n    </li>\n    </ul>"
    }
  },
  "NextToken": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Token for the next set of results.</p>"
    }
  },
  "MaxResults": {
    "target": "com.amazonaws.licensemanager#MaxSize100",
    "traits": {
      "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
    }
  },
  "traits": {
    "smithy.api#input": {}
  }
},
"com.amazonaws.licensemanager#ListReceivedLicensesResponse": {
  "type": "structure",
  "members": {
    "Licenses": {
      "target": "com.amazonaws.licensemanager#GrantedLicenseList",
      "traits": {
        "smithy.api#documentation": "<p>Received license details.</p>"
      }
    }
  },
  "NextToken": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Token for the next set of results.</p>"
    }
  },
  "traits": {
    "smithy.api#output": {}
  }
},
"com.amazonaws.licensemanager#ListResourceInventory": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanager#ListResourceInventoryRequest"
  }
}

```

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    },
    "output": {
      "target": "com.amazonaws.licensemanager#ListResourceInventoryResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#FailedDependencyException"
      },
      {
        "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Lists resources managed using Systems Manager inventory.</p>"
    }
  },
  "com.amazonaws.licensemanager#ListResourceInventoryRequest": {
    "type": "structure",
    "members": {
      "MaxResults": {
        "target": "com.amazonaws.licensemanager#BoxInteger",
        "traits": {
          "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
        }
      },
      "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
      },
      "Filters": {
        "target": "com.amazonaws.licensemanager#InventoryFilterList",

```

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        "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n    are supported:</p>\n    <ul>\n        <li>\n            <p>\n                <code>account_id</code>
- The ID of the Amazon Web Services account that owns the resource.\n            Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n        </li>\n        <li>\n            <p>\n                <code>application_name</code> - The name of the
application. \n            Logical operators are <code>EQUALS</code> | <code>BEGINS_WITH</code>.</p>\n        </li>\n        <li>\n            <p>\n                <code>license_included</code> - The type of license included. \n
            Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.\n            Possible values
are <code>sql-server-enterprise</code> | \n                <code>sql-server-standard</code> | \n                <code>sql-
server-web</code> | \n                <code>windows-server-datacenter</code>.</p>\n        </li>\n        <li>\n            <p>\n                <code>platform</code> - The platform of the resource.\n            Logical operators are
<code>EQUALS</code> | <code>BEGINS_WITH</code>.</p>\n        </li>\n        <li>\n            <p>\n                <code>resource_id</code> - The ID of the resource. \n            Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n        </li>\n        <li>\n            <p>\n                <code>tag:<key></code> - The key/value combination of a tag assigned \n            to the resource. Logical
operators are <code>EQUALS</code> (single account) or\n                <code>EQUALS</code> |
<code>NOT_EQUALS</code> (cross account).</p>\n        </li>\n    </ul>"
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#ListResourceInventoryResponse": {
    "type": "structure",
    "members": {
        "ResourceInventoryList": {
            "target": "com.amazonaws.licensemanager#ResourceInventoryList",
            "traits": {
                "smithy.api#documentation": "<p>Information
about the resources.</p>"
            }
        },
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#ListTagsForResource": {
    "type": "operation",

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"input": {
  "target": "com.amazonaws.licensemanager#ListTagsForResourceRequest"
},
"output": {
  "target": "com.amazonaws.licensemanager#ListTagsForResourceResponse"
},
"errors": [
  {
    "target": "com.amazonaws.licensemanager#AccessDeniedException"
  },
  {
    "target": "com.amazonaws.licensemanager#AuthorizationException"
  },
  {
    "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
  },
  {
    "target": "com.amazonaws.licensemanager#RateLimitExceededException"
  },
  {
    "target": "com.amazonaws.licensemanager#ServerInternalException"
  }
],
"traits": {
  "smithy.api#documentation": "<p>Lists the tags for the specified license configuration.</p>"
},
"com.amazonaws.licensemanager#ListTagsForResourceRequest": {
  "type": "structure",
  "members": {
    "ResourceArn": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>",
        "smithy.api#required": {}
      }
    }
  },
  "traits": {
    "smithy.api#input": {}
  }
},
"com.amazonaws.licensemanager#ListTagsForResourceResponse": {
  "type": "structure",
  "members": {
    "Tags": {

```



```

        "target": "com.amazonaws.licensemanager#TagList",
        "traits": {
            "smithy.api#documentation": "<p>Information about the tags.</p>"
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#ListTokens": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListTokensRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#ListTokensResponse"
    },
    "errors":
[
    {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
    },
    {
        "target": "com.amazonaws.licensemanager#ValidationException"
    }
],
    "traits": {
        "smithy.api#documentation": "<p>Lists your tokens.</p>"
    }
},
"com.amazonaws.licensemanager#ListTokensRequest": {
    "type": "structure",
    "members": {
        "TokenIds": {
            "target": "com.amazonaws.licensemanager#StringList",
            "traits": {

```

```

        "smithy.api#documentation": "<p>Token IDs.</p>"
    },
    "Filters": {
        "target": "com.amazonaws.licensemanager#FilterList",
        "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filter is supported:</p>\n
<ul>\n    <li>\n        <p>\n            <code>LicenseArns</code>\n        </p>\n    </li>\n</ul>"
        }
    },
    "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
    },
    "MaxResults": {
        "target": "com.amazonaws.licensemanager#MaxSize100",
        "traits": {
            "smithy.api#documentation":
"<p>Maximum number of results to return in a single call.</p>"
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#ListTokensResponse": {
    "type": "structure",
    "members": {
        "Tokens": {
            "target": "com.amazonaws.licensemanager#TokenList",
            "traits": {
                "smithy.api#documentation": "<p>Received token details.</p>"
            }
        },
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
}

```

```

    },
    "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration":
    {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists all license usage records for a license configuration, displaying
license\n      consumption details by resource at a selected point in time. Use this action to audit the\n      current
license consumption for any license inventory and configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                    "smithy.api#required": {}
                }
            }
        }
    },

```

```

    "MaxResults": {
      "target": "com.amazonaws.licensemanager#BoxInteger",
      "traits": {
        "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
      }
    },
    "NextToken": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Token for the next set of results.</p>"
      }
    },
    "Filters": {
      "target": "com.amazonaws.licensemanager#Filters",
      "traits": {
        "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n    are supported:</p>\n    <ul>\n      <li>\n        <p>\n<code>resourceArn</code> - The ARN of the license configuration resource.\n      Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n      </li>\n      <li>\n        <p>\n          <code>resourceType</code> - The resource type
(<code>EC2_INSTANCE</code> | <code>EC2_HOST</code> | <code>EC2_AMI</code> |
<code>SYSTEMS_MANAGER_MANAGED_INSTANCE</code>). \n      Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n      </li>\n      <li>\n        <p>\n          <code>resourceAccount</code> - The ID of the account that owns the resource. \n      Logical operators
are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n      </li>\n    </ul>"
      }
    }
  },
  "traits": {
    "smithy.api#input": {}
  }
},
"com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse": {
  "type": "structure",
  "members": {

    "LicenseConfigurationUsageList": {
      "target": "com.amazonaws.licensemanager#LicenseConfigurationUsageList",
      "traits": {
        "smithy.api#documentation": "<p>Information about the license configurations.</p>"
      }
    },
    "NextToken": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Token for the next set of results.</p>"
      }
    }
  }
}

```

```

    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#Location": {
    "type": "string"
  },
  "com.amazonaws.licensemanager#Long": {
    "type": "long"
  },
  "com.amazonaws.licensemanager#ManagedResourceSummary": {
    "type": "structure",
    "members": {
      "ResourceType": {
        {
          "target": "com.amazonaws.licensemanager#ResourceType",
          "traits": {
            "smithy.api#documentation": "<p>Type of resource associated with a license.</p>"
          }
        },
        "AssociationCount": {
          "target": "com.amazonaws.licensemanager#BoxLong",
          "traits": {
            "smithy.api#documentation": "<p>Number of resources associated with licenses.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Summary information about a managed resource.</p>"
      }
    },
    "com.amazonaws.licensemanager#ManagedResourceSummaryList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ManagedResourceSummary"
      }
    },
    "com.amazonaws.licensemanager#MaxSize100": {
      "type": "integer",
      "traits": {
        "smithy.api#range": {
          "min": 1,
          "max": 100
        }
      }
    },
  },

```

```

"com.amazonaws.licensemanager#MaxSize3StringList": {
  "type": "list",
  "member": {
    "target": "com.amazonaws.licensemanager#String"
  },
  "traits": {
    "smithy.api#length": {
      "min": 0,
      "max": 3
    }
  }
},
"com.amazonaws.licensemanager#Message": {
  "type": "string"
},
"com.amazonaws.licensemanager#Metadata": {
  "type": "structure",
  "members": {
    "Name": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>The key name.</p>"
      }
    }
  },
  "Value": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>The value.</p>"
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Describes key/value pairs.</p>"
  }
},
"com.amazonaws.licensemanager#MetadataList": {
  "type": "list",
  "member": {
    "target": "com.amazonaws.licensemanager#Metadata"
  }
},
"com.amazonaws.licensemanager#NoEntitlementsAllowedException": {
  "type": "structure",
  "members": {
    "Message": {
      "target": "com.amazonaws.licensemanager#Message"
    }
  }
}

```

```

    },
    "traits": {
      "smithy.api#documentation": "<p>There are no entitlements found for this license, or the entitlement
maximum count is reached.</p>",
      "smithy.api#error": "client",
      "smithy.api#httpError": 400
    }
  },
  "com.amazonaws.licensemanager#Options": {
    "type": "structure",
    "members": {
      "ActivationOverrideBehavior": {
        "target": "com.amazonaws.licensemanager#ActivationOverrideBehavior",
        "traits": {
          "smithy.api#documentation": "<p>An activation option for your grant that determines the behavior of
activating a grant.\n      Activation options can only be used with granted licenses sourced from the Amazon Web
Services Marketplace. Additionally, the operation must specify the value of <code>ACTIVE</code> for the\n
<code>Status</code> parameter.</p>\n      <ul>\n        <li>\n          <p>As a license administrator, you can
optionally specify an\n          <code>ActivationOverrideBehavior</code> when activating a grant.</p>\n
        </li>\n        <li>\n          <p>As a grantor, you can optionally specify an\n
<code>ActivationOverrideBehavior</code> when you activate a grant for a grantee\n          account in your
organization.</p>\n        </li>\n        <li>\n          <p>As a grantee, if the grantor creating the distributed
grant doesnt specify an\n          <code>ActivationOverrideBehavior</code>, you can optionally specify one
when you\n          are activating the grant.</p>\n        </li>\n      </ul>\n      <dl>\n
        <dt>DISTRIBUTED_GRANTS_ONLY</dt>\n        <dd>\n          <p>Use this value to activate a grant
without replacing any member accounts\n          active grants for the same product.</p>\n        </dd>\n
        <dt>ALL_GRANTS_PERMITTED_BY_ISSUER</dt>\n        <dd>\n          <p>Use this value to activate a
grant and disable other active grants in any\n          member accounts
for the same product. This action will also replace their\n          previously activated grants with this activated
grant.</p>\n        </dd>\n      </dl>"
        }
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>The options you can specify when you create a new version of a grant,
such as activation\n      override behavior. For more information, see <a
href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-licenses.html\">Granted licenses in
License Manager</a> in the <i>License Manager User Guide</i>.</p>"
    }
  },
  "com.amazonaws.licensemanager#OrganizationConfiguration": {
    "type": "structure",
    "members": {
      "EnableIntegration": {
        "target": "com.amazonaws.licensemanager#Boolean",
        "traits": {
          "smithy.api#default": false,
          "smithy.api#documentation":

```

```

    "<p>Enables Organizations integration.</p>",
    "smithy.api#required": {}
  }
},
"traits": {
  "smithy.api#documentation": "<p>Configuration information for Organizations.</p>"
}
},
"com.amazonaws.licensemanager#PrincipalArnList": {
  "type": "list",
  "member": {
    "target": "com.amazonaws.licensemanager#Arn"
  },
  "traits": {
    "smithy.api#length": {
      "min": 1,
      "max": 1
    }
  }
},
"com.amazonaws.licensemanager#ProductInformation": {
  "type": "structure",
  "members": {
    "ResourceType": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Resource type. The
possible values are <code>SSM_MANAGED</code> | <code>RDS</code>.</p>",
        "smithy.api#required": {}
      }
    },
    "ProductInformationFilterList": {
      "target": "com.amazonaws.licensemanager#ProductInformationFilterList",
      "traits": {
        "smithy.api#documentation": "<p>A Product information filter consists of a
<code>ProductInformationFilterComparator</code> which is a logical operator, a
<code>ProductInformationFilterName</code> which specifies the type of filter being declared, and a
<code>ProductInformationFilterValue</code> that specifies the value to filter on. </p>\n    <p>Accepted values
for <code>ProductInformationFilterName</code> are listed here along with descriptions and valid options for
<code>ProductInformationFilterComparator</code>. </p>\n    <p>The following filters and are supported when
the resource type \n    is <code>SSM_MANAGED</code>:</p>\n
    <ul>\n      <li>\n        <p>\n          <code>Application Name</code> - The name of the
application.\n          Logical operator is <code>EQUALS</code>.</p>\n      </li>\n      <li>\n        <p>\n          <code>Application Publisher</code> - The publisher of the application.\n          Logical
operator is <code>EQUALS</code>.</p>\n      </li>\n      <li>\n        <p>\n          <code>Application Version</code> - The version of the application.\n          Logical operator is
<code>EQUALS</code>.</p>\n      </li>\n      <li>\n        <p>\n          <code>Platform

```


`Name` - The name of the platform.
 Logical operator is `EQUALS`.
`Platform Type` - The platform type.
 Logical operator is `EQUALS`.
`Tag:key` - The key of a tag attached to an Amazon Web Services resource you wish to exclude from automated discovery. Logical operator is `NOT_EQUALS`. The key for your tag must be appended to `Tag:` following the example: `Tag:name-of-your-key`. `ProductInformationFilterValue` is optional if you are not using values for the key.
`AccountId` - The 12-digit ID of an Amazon Web Services account you wish to exclude from automated discovery.
 Logical operator is `NOT_EQUALS`.
`License Included` - The type of license included.
 Logical operators are `EQUALS` and `NOT_EQUALS`. Possible values are:
`sql-server-enterprise` | `sql-server-standard` | `sql-server-web` | `windows-server-datacenter`.
 The following filters and logical operators are supported when the resource type is `RDS`:
`Engine Edition` - The edition of the database engine.
 Logical operator is `EQUALS`. Possible values are: `oracle-ee` | `oracle-se` | `oracle-se1` | `oracle-se2`.
`License Pack` - The license pack.
 Logical operator is `EQUALS`. Possible values are: `data guard` | `diagnostic pack sqlt` | `tuning pack sqlt` | `ols` | `olap`.
 "smithy.api#required": {}
 },
 "traits": {
 "smithy.api#documentation": "<p>Describes product information for a license configuration.</p>"
 },
 "com.amazonaws.licensemanager#ProductInformationFilter": {
 "type": "structure",
 "members": {
 "ProductInformationFilterName": {
 "target": "com.amazonaws.licensemanager#String",
 "traits": {
 "smithy.api#documentation": "<p>Filter name.</p>",
 "smithy.api#required": {}
 }
 },
 "ProductInformationFilterValue": {
 "target": "com.amazonaws.licensemanager#StringList",
 "traits": {
 "smithy.api#documentation": "<p>Filter value.</p>"
 }
 }
 },
 },
 },
}

```

    "ProductInformationFilterComparator": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Logical operator.</p>",
        "smithy.api#required": {}
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>Describes product information filters.</p>"
    }
  },
  "com.amazonaws.licensemanager#ProductInformationFilterList": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#ProductInformationFilter"
    }
  },
  "com.amazonaws.licensemanager#ProductInformationList": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#ProductInformation"
    }
  },
  "com.amazonaws.licensemanager#ProvisionalConfiguration": {
    "type": "structure",
    "members": {
      "MaxTimeToLiveInMinutes": {
        "target": "com.amazonaws.licensemanager#BoxInteger",
        "traits": {
          "smithy.api#documentation": "<p>Maximum time for the provisional configuration, in minutes.</p>",
          "smithy.api#required": {}
        }
      }
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
  }
},
"com.amazonaws.licensemanager#RateLimitExceededException": {
  "type": "structure",
  "members": {
    "Message": {
      "target": "com.amazonaws.licensemanager#Message"
    }
  },
  "traits": {

```

```

    "aws.protocols#awsQueryError": {
      "code": "RateLimitExceeded",
      "httpResponseCode": 429
    },
    "smithy.api#documentation": "<p>Too many requests have been submitted. Try again after a brief
wait.</p>",
    "smithy.api#error": "client",
    "smithy.api#httpError": 429
  }
},
"com.amazonaws.licensemanager#ReceivedMetadata": {
  "type": "structure",
  "members": {
    "ReceivedStatus": {
      "target": "com.amazonaws.licensemanager#ReceivedStatus",
      "traits": {
        "smithy.api#documentation": "<p>Received status.</p>"
      }
    },
    "ReceivedStatusReason": {
      "target": "com.amazonaws.licensemanager#StatusReasonMessage",
      "traits": {
        "smithy.api#documentation": "<p>Received
status reason.</p>"
      }
    }
  },
  "AllowedOperations": {
    "target": "com.amazonaws.licensemanager#AllowedOperationList",
    "traits": {
      "smithy.api#documentation": "<p>Allowed operations.</p>"
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Metadata associated with received licenses and grants.</p>"
  }
},
"com.amazonaws.licensemanager#ReceivedStatus": {
  "type": "enum",
  "members": {
    "PENDING_WORKFLOW": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "PENDING_WORKFLOW"
      }
    },
    "PENDING_ACCEPT": {
      "target": "smithy.api#Unit",

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        "traits": {
            "smithy.api#enumValue":
"PENDING_ACCEPT"
        }
    },
    "REJECTED": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "REJECTED"
        }
    },
    "ACTIVE": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "ACTIVE"
        }
    },
    "FAILED_WORKFLOW": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "FAILED_WORKFLOW"
        }
    },
    "DELETED": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "DELETED"
        }
    },
    "DISABLED": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "DISABLED"
        }
    },
    "WORKFLOW_COMPLETED": {
        "target": "smithy.api#Unit",
        "traits": {
            "smithy.api#enumValue": "WORKFLOW_COMPLETED"
        }
    }
},
"com.amazonaws.licensemanager#RedirectException": {
    "type": "structure",
    "members": {
        "Location": {
            "target": "com.amazonaws.licensemanager#Location",

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        "traits": {
            "smithy.api#httpHeader": "Location"
        },
        "Message": {
            "target": "com.amazonaws.licensemanager#Message"
        },
        "traits": {
            "smithy.api#documentation": "<p>This is not the correct Region for the resource. Try again.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 308
        },
        "com.amazonaws.licensemanager#RejectGrant": {
            "type": "operation",
            "input": {
                "target": "com.amazonaws.licensemanager#RejectGrantRequest"
            },
            "output": {
                "target": "com.amazonaws.licensemanager#RejectGrantResponse"
            },
            "errors": [
                {
                    "target": "com.amazonaws.licensemanager#AccessDeniedException"
                },
                {
                    "target": "com.amazonaws.licensemanager#AuthorizationException"
                },
                {
                    "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
                },
                {
                    "target": "com.amazonaws.licensemanager#RateLimitExceededException"
                },
                {
                    "target":
"com.amazonaws.licensemanager#ResourceLimitExceededException"
                },
                {
                    "target": "com.amazonaws.licensemanager#ServerInternalException"
                },
                {
                    "target": "com.amazonaws.licensemanager#ValidationException"
                }
            ],
            "traits": {
                "smithy.api#documentation": "<p>Rejects the specified grant.</p>"
            }
        }
    }
}

```

```

    }
  },
  "com.amazonaws.licensemanager#RejectGrantRequest": {
    "type": "structure",
    "members": {
      "GrantArn": {
        "target": "com.amazonaws.licensemanager#Arn",
        "traits": {
          "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
          "smithy.api#required": {}
        }
      }
    }
  },
  "traits": {
    "smithy.api#input": {}
  }
},
  "com.amazonaws.licensemanager#RejectGrantResponse": {
    "type": "structure",
    "members": {
      "GrantArn": {
        "target": "com.amazonaws.licensemanager#Arn",
        "traits": {
          "smithy.api#documentation": "<p>Grant ARN.</p>"
        }
      }
    },
    "Status": {
      "target": "com.amazonaws.licensemanager#GrantStatus",
      "traits": {
        "smithy.api#documentation": "<p>Grant status.</p>"
      }
    },
    "Version": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Grant version.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#output": {}
  }
},
  "com.amazonaws.licensemanager#RenewType":
{
  "type": "enum",
  "members": {

```

```

    "NONE": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "None"
      }
    },
    "WEEKLY": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Weekly"
      }
    },
    "MONTHLY": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Monthly"
      }
    }
  },
  "com.amazonaws.licensemanager#ReportContext": {
    "type": "structure",
    "members": {
      "licenseConfigurationArns": {
        "target": "com.amazonaws.licensemanager#ArnList",
        "traits": {
          "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration that this generator reports on.</p>",
          "smithy.api#required": {}
        }
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>Details of the license configuration that this generator reports on.</p>"
    }
  },
  "com.amazonaws.licensemanager#ReportFrequency": {
    "type": "structure",
    "members": {
      "value": {
        "target": "com.amazonaws.licensemanager#Integer",
        "traits": {
          "smithy.api#documentation": "<p>Number of times within the frequency period that a report is generated. \n      The only supported value is <code>1</code>.</p>"
        }
      }
    },
    "period": {

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        "target": "com.amazonaws.licensemanager#ReportFrequencyType",

        "traits": {
            "smithy.api#documentation": "<p>Time period between each report. The period can be daily, weekly,
or monthly.</p>"
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
    }
},
"com.amazonaws.licensemanager#ReportFrequencyType": {
    "type": "enum",
    "members": {
        "DAY": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "DAY"
            }
        },
        "WEEK": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "WEEK"
            }
        },
        "MONTH": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "MONTH"
            }
        }
    }
},
"com.amazonaws.licensemanager#ReportGenerator": {
    "type": "structure",
    "members": {
        "ReportGeneratorName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Name of the report generator.</p>"
            }
        },
        "ReportType": {
            "target": "com.amazonaws.licensemanager#ReportTypeList",
            "traits": {

```



```

        "smithy.api#documentation": "<p>Type of reports that are generated.</p>"
    },
    "ReportContext": {
        "target": "com.amazonaws.licensemanager#ReportContext",
        "traits": {
            "smithy.api#documentation": "<p>License
configuration type for this generator.</p>"
        }
    },
    "ReportFrequency": {
        "target": "com.amazonaws.licensemanager#ReportFrequency",
        "traits": {
            "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
        }
    },
    "LicenseManagerReportGeneratorArn": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>"
        }
    },
    "LastRunStatus": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>Status of the last report generation attempt.</p>"
        }
    },
    "LastRunFailureReason":
{
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
        "smithy.api#documentation": "<p>Failure message for the last report generation attempt.</p>"
    }
},
    "LastReportGenerationTime": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>Time the last report was generated at.</p>"
        }
    },
    "ReportCreatorAccount": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>The Amazon Web Services account ID used to create the report
generator.</p>"
        }
    },
}

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```

    "Description": {
      "target": "com.amazonaws.licensemanager#String",

      "traits": {
        "smithy.api#documentation": "<p>Description of the report generator.</p>"
      }
    },
    "S3Location": {
      "target": "com.amazonaws.licensemanager#S3Location",
      "traits": {
        "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published
to.</p>"
      }
    },
    "CreateTime": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Time the report was created.</p>"
      }
    },
    "Tags": {
      "target": "com.amazonaws.licensemanager#TagList",
      "traits": {
        "smithy.api#documentation": "<p>Tags associated with the report generator.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Describe the details of a report generator.</p>"
  },
  "com.amazonaws.licensemanager#ReportGeneratorList": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#ReportGenerator"
    }
  },
  "com.amazonaws.licensemanager#ReportGeneratorName": {
    "type": "string",
    "traits": {
      "smithy.api#length": {
        "min": 1,
        "max": 100
      }
    }
  },
  "com.amazonaws.licensemanager#ReportType": {

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    "type": "enum",
    "members": {
      "LICENSE_CONFIGURATION_SUMMARY_REPORT": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "LicenseConfigurationSummaryReport"
        }
      },
      "LICENSE_CONFIGURATION_USAGE_REPORT": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "LicenseConfigurationUsageReport"
        }
      }
    },
    "com.amazonaws.licensemanager#ReportTypeList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ReportType"
      }
    },
    "com.amazonaws.licensemanager#ResourceInventory": {
      "type": "structure",
      "members": {
        "ResourceId": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>ID of the resource.</p>"
          }
        },
        "ResourceType": {
          "target": "com.amazonaws.licensemanager#ResourceType",
          "traits": {
            "smithy.api#documentation": "<p>Type of resource.</p>"
          }
        },
        "ResourceArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
          }
        },
        "Platform": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {

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```

        "smithy.api#documentation": "<p>Platform of the resource.</p>"
    },
    "PlatformVersion": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>Platform version of the resource in the inventory.</p>"
        }
    },
    "ResourceOwningAccountId": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Details about a resource.</p>"
    },
    "com.amazonaws.licensemanager#ResourceInventoryList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#ResourceInventory"
        }
    },
    "com.amazonaws.licensemanager#ResourceLimitExceededException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "aws.protocols#awsQueryError": {
                "code": "ResourceLimitExceeded",

                "httpResponseCode": 400
            },
            "smithy.api#documentation": "<p>Your resource limits have been exceeded.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#ResourceNotFoundException": {
        "type": "structure",
        "members": {

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    "Message": {
      "target": "com.amazonaws.licensemanager#Message"
    }
  },
  "traits": {
    "aws.protocols#awsQueryError": {
      "code": "InvalidResource.NotFound",
      "httpResponseCode": 400
    },
    "smithy.api#documentation": "<p>The resource cannot be found.</p>",
    "smithy.api#error": "client",
    "smithy.api#httpError": 400
  }
},
"com.amazonaws.licensemanager#ResourceType": {
  "type": "enum",
  "members": {
    "EC2_INSTANCE": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "EC2_INSTANCE"
      }
    },
    "EC2_HOST": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "EC2_HOST"
      }
    },
    "EC2_AMI": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "EC2_AMI"
      }
    },
    "RDS": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "RDS"
      }
    },
    "SYSTEMS_MANAGER_MANAGED_INSTANCE": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "SYSTEMS_MANAGER_MANAGED_INSTANCE"
      }
    }
  }
}

```

```

    },
    "com.amazonaws.licensemanager#S3Location": {
      "type": "structure",
      "members": {
        "bucket": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Name of the S3 bucket reports are published to.</p>"
          }
        },
        "keyPrefix": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Prefix of the S3 bucket reports are published to.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published to.</p>"
      }
    },
    "com.amazonaws.licensemanager#ServerInternalException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "aws.protocols#awsQueryError": {
          "code": "InternalServerError",
          "httpResponseCode": 500
        },
        "smithy.api#documentation": "<p>The server experienced an internal error. Try again.</p>",
        "smithy.api#error": "server",
        "smithy.api#httpError": 500
      }
    },
    "com.amazonaws.licensemanager#SignedToken": {
      "type": "string",
      "traits": {
        "smithy.api#length": {
          "min": 4096
        }
      }
    },
    "com.amazonaws.licensemanager#StatusReasonMessage": {

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        "type": "string",
        "traits":
    {
        "smithy.api#length": {
            "min": 0,
            "max": 400
        },
        "smithy.api#pattern": "^[\s\S]+$"
    }
},
"com.amazonaws.licensemanager#String": {
    "type": "string"
},
"com.amazonaws.licensemanager#StringList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#String"
    }
},
"com.amazonaws.licensemanager#Tag": {
    "type": "structure",
    "members": {
        "Key": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Tag key.</p>"
            }
        },
        "Value": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation":
"<p>Tag value.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Details about a tag for a license configuration.</p>"
    }
},
"com.amazonaws.licensemanager#TagKeyList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#String"
    }
},
"com.amazonaws.licensemanager#TagList": {
    "type": "list",

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    "member": {
      "target": "com.amazonaws.licensemanager#Tag"
    }
  },
  "com.amazonaws.licensemanager#TagResource": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#TagResourceRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#TagResourceResponse"
    },
    "errors": [
      {
        "target":
"com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Adds the specified tags to the specified license configuration.</p>"
    }
  },
  "com.amazonaws.licensemanager#TagResourceRequest": {
    "type": "structure",
    "members": {
      "ResourceArn": {
        "target": "com.amazonaws.licensemanager#String",
        "traits":
{
          "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
          "smithy.api#required": {}
        }
      },
      "Tags": {
        "target": "com.amazonaws.licensemanager#TagList",

```



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        "traits": {
            "smithy.api#documentation": "<p>One or more tags.</p>",
            "smithy.api#required": {}
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#TagResourceResponse": {
    "type": "structure",
    "members": {},
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#TokenData": {
    "type": "structure",
    "members": {
        "TokenId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Token ID.</p>"
            }
        },
        "TokenType": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Type of token generated. The supported value is
<code>REFRESH_TOKEN</code>.</p>"
            }
        },
        "LicenseArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
        },
        "ExpirationTime": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Token expiration time, in ISO8601-UTC
format.</p>"
            }
        },
        "TokenProperties": {
            "target": "com.amazonaws.licensemanager#MaxSize3StringList",

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```

    "traits": {
      "smithy.api#documentation": "<p>Data specified by the caller.</p>"
    }
  },
  "RoleArns": {
    "target": "com.amazonaws.licensemanager#ArnList",
    "traits": {
      "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the roles included in the
token.</p>"
    }
  },
  "Status": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Token status. The possible values are
<code>AVAILABLE</code> and <code>DELETED</code>.</p>"
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>Describes a token.</p>"
  },
  "com.amazonaws.licensemanager#TokenList": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#TokenData"
    }
  },
  "com.amazonaws.licensemanager#TokenString": {
    "type": "string",
    "traits": {
      "smithy.api#length": {
        "min": 0,
        "max": 4096
      },
      "smithy.api#pattern": "^\\S+$"
    }
  },
  "com.amazonaws.licensemanager#TokenType": {
    "type": "enum",
    "members": {
      "REFRESH_TOKEN": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "REFRESH_TOKEN"
        }
      }
    }
  }

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```

    }
  },
  "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException":
{
  "type": "structure",
  "members": {
    "Message": {
      "target": "com.amazonaws.licensemanager#Message"
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>The digital signature method is unsupported. Try your request
again.</p>",
    "smithy.api#error": "client",
    "smithy.api#httpError": 400
  }
},
  "com.amazonaws.licensemanager#UntagResource": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#UntagResourceRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#UntagResourceResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Removes the specified tags from the specified license
configuration.</p>"
    }
  },

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```

"com.amazonaws.licensemanager#UntagResourceRequest": {
  "type": "structure",
  "members": {
    "ResourceArn": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>",
        "smithy.api#required": {}
      }
    },
    "TagKeys": {
      "target": "com.amazonaws.licensemanager#TagKeyList",
      "traits": {
        "smithy.api#documentation": "<p>Keys identifying the tags to remove.</p>",
        "smithy.api#required": {}
      }
    }
  },
  "traits": {
    "smithy.api#input": {}
  }
},
"com.amazonaws.licensemanager#UntagResourceResponse": {
  "type": "structure",
  "members": {},
  "traits": {
    "smithy.api#output": {}
  }
},
"com.amazonaws.licensemanager#UpdateLicenseConfiguration": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    }
  ]
}

```

```

    },
    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Modifies the attributes of an existing license configuration.</p>"
  }
},
"com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest": {
  "type": "structure",
  "members": {
    "LicenseConfigurationArn": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>",
        "smithy.api#required": {}
      }
    },
    "LicenseConfigurationStatus": {
      "target": "com.amazonaws.licensemanager#LicenseConfigurationStatus",
      "traits": {
        "smithy.api#documentation": "<p>New status of the license configuration.</p>"
      }
    },
    "LicenseRules": {
      "target": "com.amazonaws.licensemanager#StringList",
      "traits": {
        "smithy.api#documentation": "<p>New license rule. The only rule that you can add after you create a license\nconfiguration is licenseAffinityToHost.</p>"
      }
    },
    "LicenseCount": {
      "target": "com.amazonaws.licensemanager#BoxLong",
      "traits": {
        "smithy.api#documentation": "<p>New number of licenses managed by the license configuration.</p>"
      }
    },
    "LicenseCountHardLimit": {

```

```

        "target": "com.amazonaws.licensemanager#BoxBoolean",
        "traits": {
            "smithy.api#documentation": "<p>New hard limit of the number of available licenses.</p>"
        }
    },
    "Name": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>New name
of the license configuration.</p>"
        }
    },
    "Description": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>New description of the license configuration.</p>"
        }
    },
    "ProductInformationList": {
        "target": "com.amazonaws.licensemanager#ProductInformationList",
        "traits": {
            "smithy.api#documentation": "<p>New product information.</p>"
        }
    },
    "DisassociateWhenNotFound": {
        "target": "com.amazonaws.licensemanager#BoxBoolean",
        "traits": {
            "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
        }
    },
    "traits": {
        {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest"

```

```

    },
    "output": {
      "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      },
      {
        "target": "com.amazonaws.licensemanager#ValidationException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Updates a report generator.</p>\n      <p>After you make changes to a  
report generator, it starts generating new reports within 60 minutes of being updated.</p>"
    },
    "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest":
    {
      "type": "structure",
      "members": {
        "LicenseManagerReportGeneratorArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to  
update.</p>",
            "smithy.api#required": {}
          }
        },
        "ReportGeneratorName": {

```

```

        "target": "com.amazonaws.licensemanager#ReportGeneratorName",
        "traits": {
            "smithy.api#documentation": "<p>Name of the report generator.</p>",
            "smithy.api#required": {}
        }
    },
    "Type": {
        "target": "com.amazonaws.licensemanager#ReportTypeList",
        "traits": {
            "smithy.api#documentation":
                "<p>Type of reports to generate. The following report types are supported:</p>\n
                <ul>\n
                <li>\n
                <p>License configuration report - Reports the number and details of consumed licenses for a license
                configuration.</p>\n
                </li>\n
                <li>\n
                <p>Resource report - Reports the tracked licenses and
                resource consumption for a license configuration.</p>\n
                </li>\n
                </ul>",
            "smithy.api#required": {}
        }
    },
    "ReportContext": {
        "target": "com.amazonaws.licensemanager#ReportContext",
        "traits": {
            "smithy.api#documentation": "<p>The report context.</p>",
            "smithy.api#required": {}
        }
    },
    "ReportFrequency": {
        "target": "com.amazonaws.licensemanager#ReportFrequency",
        "traits": {
            "smithy.api#documentation": "<p>Frequency by which reports are generated.</p>",
            "smithy.api#required": {}
        }
    },
    "ClientToken": {
        "target": "com.amazonaws.licensemanager#ClientRequestToken",
        "traits": {
            "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
            idempotency of the request.</p>",
            "smithy.api#required": {}
        }
    },
    "Description": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>Description of the report generator.</p>"
        }
    }
},
"traits": {

```



```

    "smithy.api#input": {}
  }
},
"com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse":
{
  "type": "structure",
  "members": {},
  "traits": {
    "smithy.api#output": {}
  }
},
"com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResource": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanager#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanager#AuthorizationException"
    },
    {
      "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
    },
    {
      "target": "com.amazonaws.licensemanager#InvalidResourceStateException"
    },
    {
      "target": "com.amazonaws.licensemanager#LicenseUsageException"
    },
    {
      "target": "com.amazonaws.licensemanager#RateLimitExceededException"
    },
    {
      "target": "com.amazonaws.licensemanager#ServerInternalException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Adds or removes the specified license configurations for the specified Amazon Web Services resource.</p>\n    <p>You can update the license specifications of AMIs, instances, and hosts.\n    You cannot update the license specifications for launch templates and CloudFormation templates, \n    as they send license configurations to the operation that creates the resource.</p>"
  }
}

```

```

    }
  },

  "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest": {
    "type": "structure",
    "members": {
      "ResourceArn": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon Web Services
resource.</p>",
          "smithy.api#required": {}
        }
      },
      "AddLicenseSpecifications": {
        "target": "com.amazonaws.licensemanager#LicenseSpecifications",
        "traits": {
          "smithy.api#documentation": "<p>ARNs of the license configurations to add.</p>"
        }
      },
      "RemoveLicenseSpecifications": {
        "target": "com.amazonaws.licensemanager#LicenseSpecifications",
        "traits": {
          "smithy.api#documentation":
"<p>ARNs of the license configurations to remove.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#input": {}
    }
  },

  "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse": {
    "type": "structure",
    "members": {},
    "traits": {
      "smithy.api#output": {}
    }
  },

  "com.amazonaws.licensemanager#UpdateServiceSettings": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#UpdateServiceSettingsRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#UpdateServiceSettingsResponse"
    },
    "errors": [

```

```

{
  "target": "com.amazonaws.licensemanager#AccessDeniedException"
},
{
  "target": "com.amazonaws.licensemanager#AuthorizationException"
},
{
  "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
},
{
  "target": "com.amazonaws.licensemanager#RateLimitExceededException"
},
{
  "target": "com.amazonaws.licensemanager#ServerInternalException"
}
],
"traits": {
  "smithy.api#documentation": "<p>Updates License Manager settings for the current Region.</p>"
},
},
"com.amazonaws.licensemanager#UpdateServiceSettingsRequest": {
  "type": "structure",
  "members": {
    "S3BucketArn": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon S3 bucket where
the License
Manager information is stored.</p>"
      }
    },
    "SnsTopicArn": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon SNS topic used
for License Manager alerts.</p>"
      }
    },
    "OrganizationConfiguration": {
      "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
      "traits": {
        "smithy.api#documentation": "<p>Enables integration with Organizations for cross-account
discovery.</p>"
      }
    },
    "EnableCrossAccountsDiscovery": {
      "target": "com.amazonaws.licensemanager#BoxBoolean",
      "traits": {

```

```

        "smithy.api#documentation": "<p>Activates cross-account discovery.</p>"
    }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#UpdateServiceSettingsResponse": {
    "type": "structure",
    "members": {},
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#UsageOperation": {
    "type": "string",
    "traits": {
        "smithy.api#length": {
            "min": 0,
            "max": 50
        }
    }
},
"com.amazonaws.licensemanager#ValidationException": {
    "type": "structure",
    "members": {
        "Message": {
            "target": "com.amazonaws.licensemanager#Message"
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",

        "smithy.api#error": "client",
        "smithy.api#httpError": 400
    }
}
}

CheckoutLicense
Initialize stack step
spanInitializeStart
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation

```

spanInitializeEnd
Serialize stack step
spanBuildRequestStart
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
SetCredentialSourceMiddleware
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
spanBuildRequestEnd
Finalize stack step
spanRetryLoop
Retry
RetryMetricsHeader
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger

1.52 procfs 0.16.1

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procfs provides functions to retrieve system, kernel and process metrics from the pseudo-filesystem proc.

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1.53 github.com/confluentinc/confluent-kafka-go/v2 2.10.0

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librdkafka - Apache Kafka C driver library

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/* crc32c.c -- compute CRC-32C using the Intel crc32 instruction

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* Version 1.1 1 Aug 2013 Mark Adler

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*/

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parts of src/rdfnv1a.c: http://www.isthe.com/chongo/src/fnv/hash_32a.c

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src/rdxxhash.[ch] src/lz4*. [ch]: git@github.com:lz4/lz4.git 5ff839680134437dbf4678f3d0c7b371d84f4964

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1.54 golang 1.24.3

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```
import (  
    "bytes"  
    "internal/testenv"  
    "io"  
    "io/fs"  
    "os"  
    "path/filepath"
```

```

"testing"
)

var copyright = []byte("Copyright")

var permitted = [][]byte{
    []byte("// Code generated by "),
    []byte("// Code generated from "),
    []byte("// Created by cgo -cdefs"),
    []byte("// DO NOT EDIT\n// generated by:"),
    []byte("// Empty assembly file"),
    []byte("// Generated using cgo"),
    []byte("// Original source:\n/\thttp://www.zorinaq.com/papers/md5-amd64.html"), // public domain crypto/md5
    []byte("// created by cgo -cdefs"),
    []byte("// go run mkasm.go"),
    []byte("// mkerrors"),
    []byte("// mksys"),
    []byte("// run\n// Code generated by"), // cmd/compile/internal/test/constFold_test.go
}

func TestCopyright(t *testing.T) {
    buf := make([]byte, 2048)
    filepath.WalkDir(filepath.Join(testenv.GOROOT(t), "src"), func(path string,
        d fs.DirEntry, err error) error {
        if d.IsDir() && (d.Name() == "testdata" || d.Name() == "vendor") {
            return filepath.SkipDir
        }
        switch filepath.Ext(d.Name()) {
        default:
            return nil
        case ".s", ".go":
            // check
        }

        f, err := os.Open(path)
        if err != nil {
            t.Error(err)
            return nil
        }
        defer f.Close()
        n, err := f.Read(buf)
        if err != nil && err != io.EOF {
            t.Error(err)
            return nil
        }
        b := buf[:n]
        if bytes.Contains(b, copyright) {
            return nil
        }
    }
}

```

```

}
for _, ok := range permitted {
    if bytes.HasPrefix(b, ok) {
        return nil
    }
}
t.Errorf("%s: missing copyright notice", path)
return nil
})
}

```

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27287880

27287883

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1.55 x-sys 0.33.0

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1.56 stdlib go1.24.3

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```
package copyright
```

```
import (  
    "bytes"  
    "internal/testenv"  
    "io"  
    "io/fs"  
    "os"  
    "path/filepath"  
    "testing"  
)
```

```
var copyright = []byte("Copyright")
```

```
var permitted = [][]byte{  
    []byte("// Code generated by "),  
    []byte("// Code generated from "),  
    []byte("// Created by cgo -cdefs"),  
    []byte("// DO NOT EDIT\n// generated by:"),  
    []byte("// Empty assembly file"),  
    []byte("// Generated using cgo"),  
    []byte("// Original source:\n//\thttp://www.zorinaq.com/papers/md5-amd64.html"), // public domain crypto/md5  
    []byte("// created by cgo -cdefs"),  
    []byte("// go run mkasm.go"),  
    []byte("// mkerrors"),  
    []byte("// mksys"),  
    []byte("// run\n// Code generated by"), // cmd/compile/internal/test/constFold_test.go  
}
```

```
func TestCopyright(t *testing.T) {  
    buf := make([]byte, 2048)  
    filepath.WalkDir(filepath.Join(testenv.GOROOT(t), "src"), func(path string,  
    d fs.DirEntry, err error) error {  
        if d.IsDir() && (d.Name() == "testdata" || d.Name() == "vendor") {  
            return filepath.SkipDir  
        }  
        switch filepath.Ext(d.Name()) {  
        default:
```

```

    return nil
case ".s", ".go":
    // check
}

f, err := os.Open(path)
if err != nil {
    t.Error(err)
    return nil
}
defer f.Close()
n, err := f.Read(buf)
if err != nil && err != io.EOF {
    t.Error(err)
    return nil
}
b := buf[:n]
if bytes.Contains(b, copyright) {
    return nil
}
for _, ok := range permitted {
    if bytes.HasPrefix(b, ok) {
        return nil
    }
}
t.Errorf("%s: missing copyright notice", path)
return nil
})
}

```

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1.62 otel-metric 1.36.0

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1.63 otel-trace 1.36.0

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1.64 elastic-transport-go 8.7.0

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```
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on: [pull_request]
jobs:
  license-check:
    runs-on: ubuntu-latest
    steps:
      - uses: actions/checkout@v2
      - name: Check license headers
        run: ./github/check-license-headers.sh
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1.65 github.com/elastic/elastic-transport-go/v8 8.7.0

1.65.1 Available under license :

name: License headers
on: [pull_request]
jobs:

license-check:
runs-on: ubuntu-latest
steps:
- uses: actions/checkout@v2
- name: Check license headers
run: ./github/check-license-headers.sh
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1.69 libssl3 3.3.4-r0

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# *****
# This Perl script creates a fresh ca-bundle.crt file for use with libcurl.
# It downloads certdata.txt from Mozilla's source tree (see URL below),
# then parses certdata.txt and extracts CA Root Certificates into PEM format.
# These are then processed with the OpenSSL commandline tool to produce the
# final ca-bundle.crt file.
# The script is based on the parse-certs script written by Roland Krikava.
# This Perl script works on almost any platform since its only external
# dependency is the OpenSSL commandline tool for optional text listing.
# Hacked by Guenter Knauf.
#
```

Found in path(s):

```
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```

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```
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* C implementation based on the original Perl and shell versions
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*/
```

Found in path(s):

```
* /ca-certificates-20250619-tar-bz2/ca-certificates-20250619/c_rehash.c
```

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Version 2.0

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Found in path(s):

* /ca-certificates-20250619-tar-bz2/ca-certificates-20250619/certdata.txt

1.71 ca-certificates-bundle 20250619-r0

1.71.1 Available under license :

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```
#!/usr/bin/env perl
```

```
# *****
```

```
# *
```

```
# * Project      _ _ _ _ _
```

```
# *             / _ _ _ _ _ \
```

```
# *             | ( _ _ _ _ _ <|
```

```
# *             \ _ _ _ _ _ / \ _ _ _ _ \
```

```
# *
```

```
# * Copyright (C) Daniel Stenberg, <daniel@haxx.se>, et al.
```

```
# *
```

```
# * This software is licensed as described in the file COPYING, which
```

```
# * you should have received as part of this distribution. The terms
```

```
# * are also available at https://curl.se/docs/copyright.html.
```

```
# *
```

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# *
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```
#
```

```
  * KIND, either express or implied.
```

```
# *
```

```
# * SPDX-License-Identifier: curl
```

```
# *
```

```
# *****
```

```
# This Perl script creates a fresh ca-bundle.crt file for use with libcurl.
```

```
# It downloads certdata.txt from Mozilla's source tree (see URL below),
```

```
# then parses certdata.txt and extracts CA Root Certificates into PEM format.
```

```
# These are then processed with the OpenSSL commandline tool to produce the
```

```
# final ca-bundle.crt file.
```

```
# The script is based on the parse-certs script written by Roland Krikava.
```

```
# This Perl script works on almost any platform since its only external
# dependency is the OpenSSL commandline tool for optional text listing.
# Hacked by Guenter Knauf.
#
```

Found in path(s):

```
* /ca-certificates-20250619-tar-bz2/ca-certificates-20250619/mk-ca-bundle.pl
No license file was found, but licenses were detected in source scan.
```

```
/* c_rehash.c - Create hash symlinks for certificates
* C implementation based on the original Perl and shell versions
*
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*/
```

Found in path(s):

```
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```
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```

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```
* /ca-certificates-20250619-tar-bz2/ca-certificates-20250619/certdata.txt
```

1.72 alpine-release 3.21.4-r0

1.72.1 Available under license :

```
# Contributor: Carlo Landmeter <clandmeter@alpinelinux.org>
# Maintainer: Kevin Daudt <kdaudt@alpinelinux.org>
pkgname=spdx-licenses
pkgver=3.27.0
pkgrel=0
pkgdesc="Various data formats for the SPDX License List"
url="https://spdx.org/"
arch="noarch"
options="!check" # no test suite
license="CC-BY-3.0"
source="license-list-data-$pkgver.tar.gz::https://github.com/spdx/license-list-data/archive/v$pkgver.tar.gz"
builddir="$srcdir/license-list-data-$pkgver"
subpackages="$pkgname-list"
```

```

_types="html json rdfa rdft rdfturtle rdFXML template text"

for type in $_types; do
  subpackages="$subpackages $pkgname-$type:_subpkg"
done

package() {
  mkdir -p "$pkgdir"
}

_subpkg() {
  local type=${subpkgname/$pkgname-/}
  pkgdesc="$pkgdesc ($type)"
  install_if="$pkgname=$pkgver-r$pkgrel"
  mkdir -p "$subpkgdir"/usr/share/spdx
  cp -r "$builddir"/$type "$subpkgdir"/usr/share/spdx/
}

list() {
  pkgdesc="$pkgdesc (licence list)"
  mkdir -p "$subpkgdir"/usr/share/spdx
  local i; for i in "$builddir"/text/*.txt;
  do
    local license=${i##*/}
    echo ${license%.*} >> "$subpkgdir"/usr/share/spdx/license.lst
  done
}

sha512sums="
16d59c81e331b54b52639826f83408d98144cdaa70eacc3e8ce35dc3b13992e4794cf7515eb9db200efd390a0c0e35ae9
d4706fbe0ca6a8d236189e88870720c  license-list-data-3.27.0.tar.gz
"

# MIT License

```

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Contributor: Maxim Karasev <begs@disroot.org>

Maintainer: mio <miyopan@e.email>

pkgname=bsd-games

pkgver=3.3

pkgrel=2

pkgdesc="traditional text mode games from BSD"

url="https://bsd-games.sourceforge.io/"

arch="all"

license="BSD-3-Clause"

install="\$pkgname.post-install"

makedepends="ncurses-dev coreutils" # configure causes busybox expr error

subpackages="\$pkgname-doc"

source="https://sourceforge.net/projects/bsd-games/files/bsd-games-\$pkgver.tar.gz

0001-bsd-games-scores-dir.patch

"

options="!check" # no tests

build() {

some GNU autoconf options are ignored, but it works

./configure \

--build=\$CBUILD \

--host=\$CHOST \

--prefix=/usr \

--sysconfdir=/etc \

--mandir=/usr/share/man \

--scoredir=/usr/share/\$pkgname

make

}

package() {

make DESTDIR="\$pkgdir" install

install -Dm644 LICENSE "\$pkgdir"/usr/share/licenses/bsd-games/LICENSE

}

sha512sums="

aaf36d09d4fe68514a5c279063d7e77a9a9a84c447037cba974b29faa07eb80c2aab2379d0699c196b5c27ffe1b2bb2c6
8d3390143e0e62d5e3d210ccfb61294

bsd-games-3.3.tar.gz

e1def0d4835a877242c4173fae862e278a7858738e0bacacbb045a42bcabec2aa7c72d000bbd2421ce35fe66cdc1f52c0
577b7e278029ca5ed50f7aab22319f6 0001-bsd-games-scores-dir.patch

"

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mini_sendmail - accept email on behalf of real sendmail

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```

# Maintainer: Natanael Copa <ncopa@alpinelinux.org>
pkgname=libart-lgpl
pkgver=2.3.21
pkgrel=8
pkgdesc="A library for high-performance 2D graphics"
url="https://www.levien.com/libart/"
arch="all"
options="!check" # No test suite.
license="LGPL-2.0-or-later"
subpackages="$pkgname-dev"
source="https://download.gnome.org/sources/libart-lgpl/2.3/libart-lgpl-$pkgver.tar.bz2"
"

builddir="$srcdir"/libart-lgpl-$pkgver

prepare() {
    update_config_sub
    default_prepare
}

build() {
    ./configure \
        --build=$CBUILD \
        --host=$CHOST \
        --prefix=/usr
    make
}

package() {
    make DESTDIR="$pkgdir" install
}

sha512sums="8a632a6a4da59e5e8c02ec2f5a57e36d182b325b46513765425e5f171ff9ae326af1b133725beba28f7e7
6654309e001aee9bace727b5b4c8589405256a3c020 libart-lgpl-2.3.21.tar.bz2"
# Contributor: Patrycja Rosa <alpine@ptrcnll.me>
# Maintainer: Patrycja Rosa <alpine@ptrcnll.me>
pkgname=bsd-compat-headers
pkgver=0.7.2
pkgrel=6
pkgdesc="BSD compatibility headers (cdefs, queue, tree)"
url="https://gitlab.alpinelinux.org/alpine/aports"
arch="noarch"
license="BSD-2-Clause AND BSD-3-Clause"
source="
cdefs.h
queue.h
tree.h
"

```

```

builddir="$srcdir"
options="!check" # just headers

package() {
    mkdir -p "$pkgdir"
    install -Dm644 -t "$pkgdir"/usr/include/sys \
        cdefs.h queue.h tree.h
}
sha512sums="
37c8fc73c7aea7b490f7850927e2bb91d12137c9e59e22c084146d515696dbc7973b5de92f4c987ba080dd2502ba8312
7006442c3f019b6447a620c0cae73178 cdefs.h
2f0d5e6e4dc3350285cf17009265dddcbe12431c111868eea39bc8cb038ab7c1f2acacbb21735c4e9d4a1fd106a8fc0f86
11ea33987d4faba37dde5ce6da0750 queue.h
d9ac210d81feb8ad2655bc80fb065d3fe20ae4417b32b4a1711e6738a4870140005c13373b5d1846ef3ce5ae6da45f2da
cef2092881eded0a2e94f6a07752ef3 tree.h
"

```

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 "X-Splines: A Spline Model Designed for the End User" by C. Blanc and C. Schlick, Proceedings of SIGGRAPH'95
<http://dept-info.labri.u-bordeaux.fr/~schlick/DOC/sig1.html>
 /* \$NetBSD: queue.h,v 1.70 2015/11/02 15:21:23 christos Exp \$ */

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*

* @(#)queue.h 8.5 (Berkeley) 8/20/94

*/

```
#ifndef _SYS_QUEUE_H_
#define _SYS_QUEUE_H_
```

```
/*
 * This file defines five types of data structures: singly-linked lists,
 * lists, simple queues, tail queues, and circular queues.
 *
 * A singly-linked list is headed by a single forward pointer. The
 * elements are singly linked for minimum space and
 * pointer manipulation
 * overhead at the expense of O(n) removal for arbitrary elements. New
 * elements can be added to the list after an existing element or at the
 * head of the list. Elements being removed from the head of the list
 * should use the explicit macro for this purpose for optimum
 * efficiency. A singly-linked list may only be traversed in the forward
 * direction. Singly-linked lists are ideal for applications with large
 * datasets and few or no removals or for implementing a LIFO queue.
```

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*
* A list is headed by a single forward pointer (or an array of forward
* pointers for a hash table header). The elements are doubly linked
* so that an arbitrary element can be removed without a need to
* traverse the list. New elements can be added to the list before
* or after an existing element or at the head of the list. A list
* may only be traversed in the forward direction.
*
* A simple queue is headed by a pair of pointers, one the head of the
* list and the
other to the tail of the list. The elements are singly
* linked to save space, so elements can only be removed from the
* head of the list. New elements can be added to the list after
* an existing element, at the head of the list, or at the end of the
* list. A simple queue may only be traversed in the forward direction.
*
* A tail queue is headed by a pair of pointers, one to the head of the
* list and the other to the tail of the list. The elements are doubly
* linked so that an arbitrary element can be removed without a need to
* traverse the list. New elements can be added to the list before or
* after an existing element, at the head of the list, or at the end of
* the list. A tail queue may be traversed in either direction.
*
* A circle queue is headed by a pair of pointers, one to the head of the
* list and the other to the tail of the list. The elements are doubly
* linked so that an arbitrary element can be removed without a need to
* traverse the list. New elements
can be added to the list before or after
* an existing element, at the head of the list, or at the end of the list.
* A circle queue may be traversed in either direction, but has a more
* complex end of list detection.
*
* For details on the use of these macros, see the queue(3) manual page.
*/

/*
* Include the definition of NULL only on NetBSD because sys/null.h
* is not available elsewhere. This conditional makes the header
* portable and it can simply be dropped verbatim into any system.
* The caveat is that on other systems some other header
* must provide NULL before the macros can be used.
*/
#ifdef __NetBSD__
#include <sys/null.h>
#endif

#if defined(QEUEDEBUG)
# if defined(_KERNEL)

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# define QUEUEDEBUG_ABORT(...) panic(__VA_ARGS__)
# else
# include <err.h>
# define QUEUEDEBUG_ABORT(...) err(1, __VA_ARGS__)
# endif
#endif

/*
 * Singly-linked List definitions.
 */
#define SLIST_HEAD(name, type) \
struct name { \
    struct type *slh_first; /* first \
    element */ \
}

#define SLIST_HEAD_INITIALIZER(head) \
{ NULL }

#define SLIST_ENTRY(type) \
struct { \
    struct type *sle_next; /* next element */ \
}

/*
 * Singly-linked List access methods.
 */
#define SLIST_FIRST(head) ((head)->slh_first)
#define SLIST_END(head) NULL
#define SLIST_EMPTY(head) ((head)->slh_first == NULL)
#define SLIST_NEXT(elm, field) ((elm)->field.sle_next)

#define SLIST_FOREACH(var, head, field) \
for((var) = (head)->slh_first; \
    (var) != SLIST_END(head); \
    (var) = (var)->field.sle_next)

#define SLIST_FOREACH_SAFE(var, head, field, tvar) \
for ((var) = SLIST_FIRST((head)); \
    (var) != SLIST_END(head) && \
    ((tvar) = SLIST_NEXT((var), field), 1); \
    (var) = (tvar))

/*
 * Singly-linked List functions.
 */
#define SLIST_INIT(head) do { \
    (head)->slh_first = SLIST_END(head); \

```

```

} while (/*CONSTCOND*/0)

#define SLIST_INSERT_AFTER(slistelm, elm, field) do { \
    (elm)->field.sle_next = (slistelm)->field.sle_next; \
    (slistelm)->field.sle_next \
    = (elm); \
} while (/*CONSTCOND*/0)

#define SLIST_INSERT_HEAD(head, elm, field) do { \
    (elm)->field.sle_next = (head)->slh_first; \
    (head)->slh_first = (elm); \
} while (/*CONSTCOND*/0)

#define SLIST_REMOVE_AFTER(slistelm, field) do { \
    (slistelm)->field.sle_next = \
        SLIST_NEXT(SLIST_NEXT((slistelm), field), field); \
} while (/*CONSTCOND*/0)

#define SLIST_REMOVE_HEAD(head, field) do { \
    (head)->slh_first = (head)->slh_first->field.sle_next; \
} while (/*CONSTCOND*/0)

#define SLIST_REMOVE(head, elm, type, field) do { \
    if ((head)->slh_first == (elm)) { \
        SLIST_REMOVE_HEAD((head), field); \
    } \
    else { \
        struct type *curelm = (head)->slh_first; \
        while(curelm->field.sle_next != (elm)) \
            curelm = curelm->field.sle_next; \
        curelm->field.sle_next = \
            curelm->field.sle_next->field.sle_next; \
    } \
} while (/*CONSTCOND*/0)

/*
 * List definitions.
 */

#define LIST_HEAD(name, type) \
struct name { \
    struct type *lh_first; /* first element */ \
}

#define LIST_HEAD_INITIALIZER(head) \
{ NULL }

#define LIST_ENTRY(type) \

```

```

struct {
    \
    struct type *le_next; /* next element */ \
    struct type **le_prev; /* address of previous next element */ \
}

/*
 * List access methods.
 */

#define LIST_FIRST(head) ((head)->lh_first)
#define LIST_END(head) NULL
#define LIST_EMPTY(head) ((head)->lh_first == LIST_END(head))
#define LIST_NEXT(elm, field) ((elm)->field.le_next)

#define LIST_FOREACH(var, head, field) \
    for ((var) = ((head)->lh_first); \
         (var) != LIST_END(head); \
         (var) = ((var)->field.le_next))

#define LIST_FOREACH_SAFE(var, head, field, tvar) \
    for ((var) = LIST_FIRST((head)); \
         (var) != LIST_END(head) && \
         ((tvar) = LIST_NEXT((var), field), 1); \
         (var) = (tvar))

#define LIST_MOVE(head1, head2) do { \
    LIST_INIT((head2)); \
    if (!LIST_EMPTY((head1))) \
    { \
        (head2)->lh_first = (head1)->lh_first; \
        LIST_INIT((head1)); \
    } \
} while (/*CONSTCOND*/0)

/*
 * List functions.
 */

#ifdef QUEUEDEBDEBUG
#define QUEUEDEBDEBUG_LIST_INSERT_HEAD(head, elm, field) \
    if ((head)->lh_first && \
        (head)->lh_first->field.le_prev != &(head)->lh_first) \
        QUEUEDEBDEBUG_ABORT("LIST_INSERT_HEAD %p %s:%d", (head), \
            __FILE__, __LINE__);
#define QUEUEDEBDEBUG_LIST_OP(elm, field) \
    if ((elm)->field.le_next && \
        (elm)->field.le_next->field.le_prev != \
        &(elm)->field.le_next) \
        QUEUEDEBDEBUG_ABORT("LIST_* forw %p %s:%d", (elm), \
            __FILE__, __LINE__); \

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if (*(elm)->field.le_prev != (elm)) \
    QUEUEDEBUG_ABORT("LIST_* back %p %s:%d", (elm), \
        __FILE__, __LINE__);
#define QUEUEDEBUG_LIST_POSTREMOVE(elm, field) \
    (elm)->field.le_next = (void *)1L; \
    (elm)->field.le_prev = (void *)1L;
#else
#define QUEUEDEBUG_LIST_INSERT_HEAD(head, elm, field)
#define QUEUEDEBUG_LIST_OP(elm,
    field)
#define QUEUEDEBUG_LIST_POSTREMOVE(elm, field)
#endif

#define LIST_INIT(head) do { \
    (head)->lh_first = LIST_END(head); \
} while (/*CONSTCOND*/0)

#define LIST_INSERT_AFTER(listelm, elm, field) do { \
    QUEUEDEBUG_LIST_OP((listelm), field) \
    if (((elm)->field.le_next = (listelm)->field.le_next) != \
        LIST_END(head)) \
        (listelm)->field.le_next->field.le_prev = \
            &(elm)->field.le_next; \
    (listelm)->field.le_next = (elm); \
    (elm)->field.le_prev = &(listelm)->field.le_next; \
} while (/*CONSTCOND*/0)

#define LIST_INSERT_BEFORE(listelm, elm, field) do { \
    QUEUEDEBUG_LIST_OP((listelm), field) \
    (elm)->field.le_prev = (listelm)->field.le_prev; \
    (elm)->field.le_next = (listelm); \
    *(listelm)->field.le_prev = (elm); \
    (listelm)->field.le_prev = &(elm)->field.le_next; \
} while (/*CONSTCOND*/0)

#define LIST_INSERT_HEAD(head, elm, field) do { \
    QUEUEDEBUG_LIST_INSERT_HEAD((head), (elm), field) \
    if (((elm)->field.le_next \
        = (head)->lh_first) != LIST_END(head)) \
        (head)->lh_first->field.le_prev = &(elm)->field.le_next; \
    (head)->lh_first = (elm); \
    (elm)->field.le_prev = &(head)->lh_first; \
} while (/*CONSTCOND*/0)

#define LIST_REMOVE(elm, field) do { \
    QUEUEDEBUG_LIST_OP((elm), field) \
    if ((elm)->field.le_next != NULL) \
        (elm)->field.le_next->field.le_prev = \

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        (elm)->field.le_prev; \
*(elm)->field.le_prev = (elm)->field.le_next; \
QUEUEDEBUG_LIST_POSTREMOVE((elm), field) \
} while (/*CONSTCOND*/0)

#define LIST_REPLACE(elm, elm2, field) do { \
if (((elm2)->field.le_next = (elm)->field.le_next) != NULL) \
    (elm2)->field.le_next->field.le_prev = \
        &(elm2)->field.le_next; \
    (elm2)->field.le_prev = (elm)->field.le_prev; \
    *(elm2)->field.le_prev = (elm2); \
    QUEUEDEBUG_LIST_POSTREMOVE((elm), field) \
} while (/*CONSTCOND*/0)

/*
 * Simple queue definitions.
 */
#define SIMPLEQ_HEAD(name, type) \
struct name { \
    struct \
    type *sqh_first; /* first element */ \
    struct type **sqh_last; /* addr of last next element */ \
}

#define SIMPLEQ_HEAD_INITIALIZER(head) \
{ NULL, &(head).sqh_first }

#define SIMPLEQ_ENTRY(type) \
struct { \
    struct type *sqe_next; /* next element */ \
}

/*
 * Simple queue access methods.
 */
#define SIMPLEQ_FIRST(head) ((head)->sqh_first)
#define SIMPLEQ_END(head) NULL
#define SIMPLEQ_EMPTY(head) ((head)->sqh_first == SIMPLEQ_END(head))
#define SIMPLEQ_NEXT(elm, field) ((elm)->field.sqe_next)

#define SIMPLEQ_FOREACH(var, head, field) \
for ((var) = ((head)->sqh_first); \
    (var) != SIMPLEQ_END(head); \
    (var) = ((var)->field.sqe_next))

#define SIMPLEQ_FOREACH_SAFE(var, head, field, next) \
for ((var) = ((head)->sqh_first); \
    (var) != SIMPLEQ_END(head) && \

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        ((next = ((var)->field.sqe_next)), 1); \
        (var) = (next))

/*
 * Simple queue functions.
 */
#define SIMPLEQ_INIT(head) do { \
    (head)->sqh_first = NULL; \
    (head)->sqh_last \
    = &(head)->sqh_first; \
} while (/*CONSTCOND*/0)

#define SIMPLEQ_INSERT_HEAD(head, elm, field) do { \
    if (((elm)->field.sqe_next = (head)->sqh_first) == NULL) \
        (head)->sqh_last = &(elm)->field.sqe_next; \
    (head)->sqh_first = (elm); \
} while (/*CONSTCOND*/0)

#define SIMPLEQ_INSERT_TAIL(head, elm, field) do { \
    (elm)->field.sqe_next = NULL; \
    *(head)->sqh_last = (elm); \
    (head)->sqh_last = &(elm)->field.sqe_next; \
} while (/*CONSTCOND*/0)

#define SIMPLEQ_INSERT_AFTER(head, listelm, elm, field) do { \
    if (((elm)->field.sqe_next = (listelm)->field.sqe_next) == NULL) \
        (head)->sqh_last = &(elm)->field.sqe_next; \
    (listelm)->field.sqe_next = (elm); \
} while (/*CONSTCOND*/0)

#define SIMPLEQ_REMOVE_HEAD(head, field) do { \
    if (((head)->sqh_first = (head)->sqh_first->field.sqe_next) == NULL) \
        (head)->sqh_last = &(head)->sqh_first; \
} while (/*CONSTCOND*/0)

#define SIMPLEQ_REMOVE_AFTER(head, elm, field) do { \
    if \
        (((elm)->field.sqe_next = (elm)->field.sqe_next->field.sqe_next) \
         == NULL) \
        (head)->sqh_last = &(elm)->field.sqe_next; \
} while (/*CONSTCOND*/0)

#define SIMPLEQ_REMOVE(head, elm, type, field) do { \
    if ((head)->sqh_first == (elm)) { \
        SIMPLEQ_REMOVE_HEAD((head), field); \
    } else { \
        struct type *curelm = (head)->sqh_first; \
        while (curelm->field.sqe_next != (elm)) \

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```

    curelm = curelm->field.sqe_next; \
    if ((curelm->field.sqe_next = \
        curelm->field.sqe_next->field.sqe_next) == NULL) \
        (head)->sqh_last = &(curelm->field.sqe_next; \
    } \
} while (/*CONSTCOND*/0)

#define SIMPLEQ_CONCAT(head1, head2) do { \
    if (!SIMPLEQ_EMPTY((head2))) { \
        *(head1)->sqh_last = (head2)->sqh_first; \
        (head1)->sqh_last = (head2)->sqh_last; \
        SIMPLEQ_INIT((head2)); \
    } \
} while (/*CONSTCOND*/0)

#define SIMPLEQ_LAST(head, type, field) \
    (SIMPLEQ_EMPTY((head)) ? \
        NULL : \
        ((struct type \
            *) (void *) \
            ((char *)((head)->sqh_last) - offsetof(struct type, field))))

/*
 * Tail queue definitions.
 */
#define _TAILQ_HEAD(name, type, qual) \
    struct name { \
        qual type *tqh_first; /* first element */ \
        qual type *qual *tqh_last; /* addr of last next element */ \
    }
#define TAILQ_HEAD(name, type) _TAILQ_HEAD(name, struct type,)

#define TAILQ_HEAD_INITIALIZER(head) \
    { TAILQ_END(head), &(head).tqh_first }

#define _TAILQ_ENTRY(type, qual) \
    struct { \
        qual type *tqe_next; /* next element */ \
        qual type *qual *tqe_prev; /* address of previous next element */ \
    }
#define TAILQ_ENTRY(type) _TAILQ_ENTRY(struct type,)

/*
 * Tail queue access methods.
 */
#define TAILQ_FIRST(head) ((head)->tqh_first)
#define TAILQ_END(head) (NULL)
#define TAILQ_NEXT(elm, field) ((elm)->field.tqe_next)

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#define TAILQ_LAST(head, headname) \
    (((struct headname *) (void *) ((head)->tqh_last))->tqh_last)
#define TAILQ_PREV(elm, headname, field) \
    (((struct headname *) (void *) ((elm)->field.tqe_prev))->tqh_last)
#define TAILQ_EMPTY(head) (TAILQ_FIRST(head) == TAILQ_END(head))

#define TAILQ_FOREACH(var, head, field) \
    for ((var) = ((head)->tqh_first); \
         (var) != TAILQ_END(head); \
         (var) = ((var)->field.tqe_next))

#define TAILQ_FOREACH_SAFE(var, head, field, next) \
    for ((var) = ((head)->tqh_first); \
         (var) != TAILQ_END(head) && \
         ((next) = TAILQ_NEXT(var, field), 1); (var) = (next))

#define TAILQ_FOREACH_REVERSE(var, head, headname, field) \
    for ((var) = TAILQ_LAST((head), headname); \
         (var) != TAILQ_END(head); \
         (var) = TAILQ_PREV((var), headname, field))

#define TAILQ_FOREACH_REVERSE_SAFE(var, head, headname, field, prev) \
    for ((var) = TAILQ_LAST((head), headname); \
         (var) != TAILQ_END(head) && \
         ((prev) = TAILQ_PREV((var), headname, field), 1); (var) = (prev))

/*
 * Tail queue functions.
 */
#if defined(QUEUEDEBUG)
#define QUEUEDEBUG_TAILQ_INSERT_HEAD(head, \
    elm, field) \
    if ((head)->tqh_first && \
        (head)->tqh_first->field.tqe_prev != &(head)->tqh_first) \
        QUEUEDEBUG_ABORT("TAILQ_INSERT_HEAD %p %s:%d", (head), \
            __FILE__, __LINE__);
#define QUEUEDEBUG_TAILQ_INSERT_TAIL(head, elm, field) \
    if (*(head)->tqh_last != NULL) \
        QUEUEDEBUG_ABORT("TAILQ_INSERT_TAIL %p %s:%d", (head), \
            __FILE__, __LINE__);
#define QUEUEDEBUG_TAILQ_OP(elm, field) \
    if ((elm)->field.tqe_next && \
        (elm)->field.tqe_next->field.tqe_prev != \
        &(elm)->field.tqe_next) \
        QUEUEDEBUG_ABORT("TAILQ_* forw %p %s:%d", (elm), \
            __FILE__, __LINE__); \

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```

if (*(elm)->field.tqe_prev != (elm)) \
    QUEUEDEBUG_ABORT("TAILQ_* back %p %s:%d", (elm), \
        __FILE__, __LINE__);
#define QUEUEDEBUG_TAILQ_PREREMOVE(head, elm, field) \
if ((elm)->field.tqe_next == NULL && \
    (head)->tqh_last != &(elm)->field.tqe_next) \
    QUEUEDEBUG_ABORT("TAILQ_PREREMOVE head %p elm %p %s:%d", \
        (head), (elm), __FILE__, \
        __LINE__);
#define QUEUEDEBUG_TAILQ_POSTREMOVE(elm, field) \
    (elm)->field.tqe_next = (void *)1L; \
    (elm)->field.tqe_prev = (void *)1L;
#else
#define QUEUEDEBUG_TAILQ_INSERT_HEAD(head, elm, field)
#define QUEUEDEBUG_TAILQ_INSERT_TAIL(head, elm, field)
#define QUEUEDEBUG_TAILQ_OP(elm, field)
#define QUEUEDEBUG_TAILQ_PREREMOVE(head, elm, field)
#define QUEUEDEBUG_TAILQ_POSTREMOVE(elm, field)
#endif

#define TAILQ_INIT(head) do { \
    (head)->tqh_first = TAILQ_END(head); \
    (head)->tqh_last = &(head)->tqh_first; \
} while (/*CONSTCOND*/0)

#define TAILQ_INSERT_HEAD(head, elm, field) do { \
    QUEUEDEBUG_TAILQ_INSERT_HEAD((head), (elm), field) \
    if (((elm)->field.tqe_next = (head)->tqh_first) != TAILQ_END(head)) \
        (head)->tqh_first->field.tqe_prev = \
            &(elm)->field.tqe_next; \
    else \
        (head)->tqh_last = &(elm)->field.tqe_next; \
    (head)->tqh_first = (elm); \
    (elm)->field.tqe_prev = &(head)->tqh_first; \
} while (/*CONSTCOND*/0)

#define TAILQ_INSERT_TAIL(head, \
    elm, field) do { \
    QUEUEDEBUG_TAILQ_INSERT_TAIL((head), (elm), field) \
    (elm)->field.tqe_next = TAILQ_END(head); \
    (elm)->field.tqe_prev = (head)->tqh_last; \
    *(head)->tqh_last = (elm); \
    (head)->tqh_last = &(elm)->field.tqe_next; \
} while (/*CONSTCOND*/0)

#define TAILQ_INSERT_AFTER(head, listelm, elm, field) do { \
    QUEUEDEBUG_TAILQ_OP((listelm), field) \
    if (((elm)->field.tqe_next = (listelm)->field.tqe_next) != \

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    TAILQ_END(head)) \
    (elm)->field.tqe_next->field.tqe_prev = \
        &(elm)->field.tqe_next; \
    else \
        (head)->tqh_last = &(elm)->field.tqe_next; \
        (listelm)->field.tqe_next = (elm); \
        (elm)->field.tqe_prev = &(listelm)->field.tqe_next; \
    } while (/*CONSTCOND*/0)

#define TAILQ_INSERT_BEFORE(listelm, elm, field) do { \
    QUEUEDEBUG_TAILQ_OP((listelm), field) \
    (elm)->field.tqe_prev = (listelm)->field.tqe_prev; \
    (elm)->field.tqe_next = (listelm); \
    *(listelm)->field.tqe_prev = (elm); \
    (listelm)->field.tqe_prev \
    = &(elm)->field.tqe_next; \
    } while (/*CONSTCOND*/0)

#define TAILQ_REMOVE(head, elm, field) do { \
    QUEUEDEBUG_TAILQ_PREREMOVE((head), (elm), field) \
    QUEUEDEBUG_TAILQ_OP((elm), field) \
    if (((elm)->field.tqe_next != TAILQ_END(head)) \
        (elm)->field.tqe_next->field.tqe_prev = \
            (elm)->field.tqe_prev; \
    else \
        (head)->tqh_last = (elm)->field.tqe_prev; \
        *(elm)->field.tqe_prev = (elm)->field.tqe_next; \
        QUEUEDEBUG_TAILQ_POSTREMOVE((elm), field); \
    } while (/*CONSTCOND*/0)

#define TAILQ_REPLACE(head, elm, elm2, field) do { \
    if (((elm2)->field.tqe_next = (elm)->field.tqe_next) != \
        TAILQ_END(head)) \
        (elm2)->field.tqe_next->field.tqe_prev = \
            &(elm2)->field.tqe_next; \
    else \
        (head)->tqh_last = &(elm2)->field.tqe_next; \
        (elm2)->field.tqe_prev = (elm)->field.tqe_prev; \
        *(elm2)->field.tqe_prev = (elm2); \
    QUEUEDEBUG_TAILQ_POSTREMOVE((elm), \
    field); \
    } while (/*CONSTCOND*/0)

#define TAILQ_CONCAT(head1, head2, field) do { \
    if (!TAILQ_EMPTY(head2)) { \
        *(head1)->tqh_last = (head2)->tqh_first; \
        (head2)->tqh_first->field.tqe_prev = (head1)->tqh_last; \
        (head1)->tqh_last = (head2)->tqh_last; \
    }

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TAILQ_INIT((head2)); \
} \
} while (/*CONSTCOND*/0)

/*
 * Singly-linked Tail queue declarations.
 */
#define STAILQ_HEAD(name, type) \
struct name { \
    struct type *stqh_first; /* first element */ \
    struct type **stqh_last; /* addr of last next element */ \
}

#define STAILQ_HEAD_INITIALIZER(head) \
{ NULL, &(head).stqh_first }

#define STAILQ_ENTRY(type) \
struct { \
    struct type *stqe_next; /* next element */ \
}

/*
 * Singly-linked Tail queue access methods.
 */
#define STAILQ_FIRST(head) ((head)->stqh_first)
#define STAILQ_END(head) NULL
#define STAILQ_NEXT(elm, field) ((elm)->field.stqe_next)
#define STAILQ_EMPTY(head) (STAILQ_FIRST(head) \
    == STAILQ_END(head))

/*
 * Singly-linked Tail queue functions.
 */
#define STAILQ_INIT(head) do { \
    (head)->stqh_first = NULL; \
    (head)->stqh_last = &(head)->stqh_first; \
} while (/*CONSTCOND*/0)

#define STAILQ_INSERT_HEAD(head, elm, field) do { \
    if (((elm)->field.stqe_next = (head)->stqh_first) == NULL) \
        (head)->stqh_last = &(elm)->field.stqe_next; \
    (head)->stqh_first = (elm); \
} while (/*CONSTCOND*/0)

#define STAILQ_INSERT_TAIL(head, elm, field) do { \
    (elm)->field.stqe_next = NULL; \
    *(head)->stqh_last = (elm); \
    (head)->stqh_last = &(elm)->field.stqe_next; \
} while (/*CONSTCOND*/0)

```



```

} while (/*CONSTCOND*/0)

#define STAILQ_INSERT_AFTER(head, listelm, elm, field) do { \
    if (((elm)->field.stqe_next = (listelm)->field.stqe_next) == NULL)\
        (head)->stqh_last = &(elm)->field.stqe_next; \
    (listelm)->field.stqe_next = (elm); \
} while (/*CONSTCOND*/0)

#define STAILQ_REMOVE_HEAD(head, field) do { \
    if (((head)->stqh_first = (head)->stqh_first->field.stqe_next) \
        == NULL) \
        (head)->stqh_last = &(head)->stqh_first; \
} while (/*CONSTCOND*/0)

#define STAILQ_REMOVE(head, elm, type, field) do { \
    if ((head)->stqh_first == (elm)) { \
        STAILQ_REMOVE_HEAD((head), field); \
    } else { \
        struct type *curelm = (head)->stqh_first; \
        while (curelm->field.stqe_next != (elm)) \
            curelm = curelm->field.stqe_next; \
        if ((curelm->field.stqe_next = \
            curelm->field.stqe_next->field.stqe_next) == NULL) \
            (head)->stqh_last = &(curelm)->field.stqe_next; \
    } \
} while (/*CONSTCOND*/0)

#define STAILQ_FOREACH(var, head, field) \
    for ((var) = ((head)->stqh_first); \
        (var); \
        (var) = ((var)->field.stqe_next))

#define STAILQ_FOREACH_SAFE(var, head, field, tvar) \
    for ((var) = STAILQ_FIRST((head)); \
        (var) && ((tvar) = STAILQ_NEXT((var), field), 1); \
        (var) = (tvar))

#define STAILQ_CONCAT(head1, head2) do { \
    if (!STAILQ_EMPTY((head2))) { \
        *(head1)->stqh_last \
        = (head2)->stqh_first; \
        (head1)->stqh_last = (head2)->stqh_last; \
        STAILQ_INIT((head2)); \
    } \
} while (/*CONSTCOND*/0)

#define STAILQ_LAST(head, type, field) \
    (STAILQ_EMPTY((head)) ? \

```

```

NULL :    \
        ((struct type *)(void *) \
        ((char *)((head)->stqh_last) - offsetof(struct type, field))))

#ifndef _KERNEL
/*
 * Circular queue definitions. Do not use. We still keep the macros
 * for compatibility but because of pointer aliasing issues their use
 * is discouraged!
 */

/*
 * __launder_type(): We use this ugly hack to work around the the compiler
 * noticing that two types may not alias each other and elide tests in code.
 * We hit this in the CIRCLEQ macros when comparing 'struct name *' and
 * 'struct type *' (see CIRCLEQ_HEAD()). Modern compilers (such as GCC
 * 4.8) declare these comparisons as always false, causing the code to
 * not run as designed.
 *
 * This hack is only to be used for comparisons and thus can be fully const.
 * Do not use for assignment.
 *
 * If we ever choose to change the ABI of the CIRCLEQ macros, we could fix
 * this by changing the head/tail sentinel values, but see the note above
 * this one.
 */
static __inline const void * __launder_type(const void *);
static __inline const void *
__launder_type(const void *__x)
{
    __asm __volatile("" : "+r" (__x));
    return __x;
}

#if defined(QUEUEDEBUG)
#define QUEUEDEBUG_CIRCLEQ_HEAD(head, field) \
    if ((head)->cqh_first != CIRCLEQ_ENDC(head) && \
        (head)->cqh_first->field.cqe_prev != CIRCLEQ_ENDC(head)) \
        QUEUEDEBUG_ABORT("CIRCLEQ head forw %p %s:%d", (head), \
            __FILE__, __LINE__); \
    if ((head)->cqh_last != CIRCLEQ_ENDC(head) && \
        (head)->cqh_last->field.cqe_next != CIRCLEQ_ENDC(head)) \
        QUEUEDEBUG_ABORT("CIRCLEQ head back %p %s:%d", (head), \
            __FILE__, __LINE__);
#define QUEUEDEBUG_CIRCLEQ_ELM(head, elm, field) \
    if ((elm)->field.cqe_next == CIRCLEQ_ENDC(head)) { \
        if ((head)->cqh_last != (elm)) \

```

```

    QUEUEDEBUG_ABORT("CIRCLEQ
elm last %p %s:%d", \
    (elm), __FILE__, __LINE__); \
} else { \
    if ((elm)->field.cqe_next->field.cqe_prev != (elm)) \
        QUEUEDEBUG_ABORT("CIRCLEQ elm forw %p %s:%d", \
            (elm), __FILE__, __LINE__); \
    } \
    if ((elm)->field.cqe_prev == CIRCLEQ_ENDC(head)) { \
        if ((head)->cqh_first != (elm)) \
            QUEUEDEBUG_ABORT("CIRCLEQ elm first %p %s:%d", \
                (elm), __FILE__, __LINE__); \
    } else { \
        if ((elm)->field.cqe_prev->field.cqe_next != (elm)) \
            QUEUEDEBUG_ABORT("CIRCLEQ elm prev %p %s:%d", \
                (elm), __FILE__, __LINE__); \
    }
#define QUEUEDEBUG_CIRCLEQ_POSTREMOVE(elm, field) \
    (elm)->field.cqe_next = (void *)1L; \
    (elm)->field.cqe_prev = (void *)1L;
#else
#define QUEUEDEBUG_CIRCLEQ_HEAD(head, field)
#define QUEUEDEBUG_CIRCLEQ_ELM(head, elm, field)
#define QUEUEDEBUG_CIRCLEQ_POSTREMOVE(elm, field)
#endif

#define CIRCLEQ_HEAD(name, type) \
struct name { \
    struct type *cqh_first; /* \
    first element */ \
    struct type *cqh_last; /* last element */ \
}

#define CIRCLEQ_HEAD_INITIALIZER(head) \
{ CIRCLEQ_END(&head), CIRCLEQ_END(&head) }

#define CIRCLEQ_ENTRY(type) \
struct { \
    struct type *cqe_next; /* next element */ \
    struct type *cqe_prev; /* previous element */ \
}

/*
 * Circular queue functions.
 */
#define CIRCLEQ_INIT(head) do { \
    (head)->cqh_first = CIRCLEQ_END(head); \
    (head)->cqh_last = CIRCLEQ_END(head); \
}

```

```

} while (/*CONSTCOND*/0)

#define CIRCLEQ_INSERT_AFTER(head, listelm, elm, field) do { \
    QUEUEDEBDEBUG_CIRCLEQ_HEAD((head), field) \
    QUEUEDEBDEBUG_CIRCLEQ_ELM((head), (listelm), field) \
    (elm)->field.cqe_next = (listelm)->field.cqe_next; \
    (elm)->field.cqe_prev = (listelm); \
    if ((listelm)->field.cqe_next == CIRCLEQ_ENDC(head)) \
        (head)->cqh_last = (elm); \
    else \
        (listelm)->field.cqe_next->field.cqe_prev = (elm); \
    (listelm)->field.cqe_next = (elm); \
} while (/*CONSTCOND*/0)

#define CIRCLEQ_INSERT_BEFORE(head, \
    listelm, elm, field) do { \
    QUEUEDEBDEBUG_CIRCLEQ_HEAD((head), field) \
    QUEUEDEBDEBUG_CIRCLEQ_ELM((head), (listelm), field) \
    (elm)->field.cqe_next = (listelm); \
    (elm)->field.cqe_prev = (listelm)->field.cqe_prev; \
    if ((listelm)->field.cqe_prev == CIRCLEQ_ENDC(head)) \
        (head)->cqh_first = (elm); \
    else \
        (listelm)->field.cqe_prev->field.cqe_next = (elm); \
    (listelm)->field.cqe_prev = (elm); \
} while (/*CONSTCOND*/0)

#define CIRCLEQ_INSERT_HEAD(head, elm, field) do { \
    QUEUEDEBDEBUG_CIRCLEQ_HEAD((head), field) \
    (elm)->field.cqe_next = (head)->cqh_first; \
    (elm)->field.cqe_prev = CIRCLEQ_END(head); \
    if ((head)->cqh_last == CIRCLEQ_ENDC(head)) \
        (head)->cqh_last = (elm); \
    else \
        (head)->cqh_first->field.cqe_prev = (elm); \
    (head)->cqh_first = (elm); \
} while (/*CONSTCOND*/0)

#define CIRCLEQ_INSERT_TAIL(head, elm, field) do { \
    QUEUEDEBDEBUG_CIRCLEQ_HEAD((head), field) \
    (elm)->field.cqe_next \
    = CIRCLEQ_END(head); \
    (elm)->field.cqe_prev = (head)->cqh_last; \
    if ((head)->cqh_first == CIRCLEQ_ENDC(head)) \
        (head)->cqh_first = (elm); \
    else \
        (head)->cqh_last->field.cqe_next = (elm); \
    (head)->cqh_last = (elm); \
} while (/*CONSTCOND*/0)

```

```

} while (/*CONSTCOND*/0)

#define CIRCLEQ_REMOVE(head, elm, field) do { \
    QUEUEDEBUG_CIRCLEQ_HEAD((head), field) \
    QUEUEDEBUG_CIRCLEQ_ELM((head), (elm), field) \
    if ((elm)->field.cqe_next == CIRCLEQ_ENDC(head)) \
        (head)->cqh_last = (elm)->field.cqe_prev; \
    else \
        (elm)->field.cqe_next->field.cqe_prev = \
            (elm)->field.cqe_prev; \
    if ((elm)->field.cqe_prev == CIRCLEQ_ENDC(head)) \
        (head)->cqh_first = (elm)->field.cqe_next; \
    else \
        (elm)->field.cqe_prev->field.cqe_next = \
            (elm)->field.cqe_next; \
    QUEUEDEBUG_CIRCLEQ_POSTREMOVE((elm), field) \
} while (/*CONSTCOND*/0)

#define CIRCLEQ_FOREACH(var, head, field) \
    for ((var) = ((head)->cqh_first); \
        (var) != CIRCLEQ_ENDC(head); \
        (var) \
        = ((var)->field.cqe_next))

#define CIRCLEQ_FOREACH_REVERSE(var, head, field) \
    for ((var) = ((head)->cqh_last); \
        (var) != CIRCLEQ_ENDC(head); \
        (var) = ((var)->field.cqe_prev))

/*
 * Circular queue access methods.
 */

#define CIRCLEQ_FIRST(head) ((head)->cqh_first)
#define CIRCLEQ_LAST(head) ((head)->cqh_last)
/* For comparisons */
#define CIRCLEQ_ENDC(head) (__laundry_type(head))
/* For assignments */
#define CIRCLEQ_END(head) ((void *)(head))
#define CIRCLEQ_NEXT(elm, field) ((elm)->field.cqe_next)
#define CIRCLEQ_PREV(elm, field) ((elm)->field.cqe_prev)
#define CIRCLEQ_EMPTY(head) \
    (CIRCLEQ_FIRST(head) == CIRCLEQ_ENDC(head))

#define CIRCLEQ_LOOP_NEXT(head, elm, field) \
    (((elm)->field.cqe_next == CIRCLEQ_ENDC(head)) \
     ? ((head)->cqh_first) \
     : (elm)->field.cqe_next)
#define CIRCLEQ_LOOP_PREV(head, elm, field) \

```

```

(((elm)->field.cqe_prev == CIRCLEQ_ENDC(head)) \
    ? ((head)->cqh_last) \
    :
    (elm->field.cqe_prev))
#endif /* !_KERNEL */

#endif /* !_SYS_QUEUE_H_ */
#ifndef _SYS_CDEFS_H_
#define _SYS_CDEFS_H_

#warning usage of non-standard #include <sys/cdefs.h> is deprecated

#undef __P
#undef __PMT

#define __P(args) args
#define __PMT(args) args

#define __CONCAT(x,y) x ## y
#define __STRING(x) #x

#ifdef __cplusplus
# define __BEGIN_DECLS extern "C" {
# define __END_DECLS }
#else
# define __BEGIN_DECLS
# define __END_DECLS
#endif

#if defined(__GNUC__) && !defined(__cplusplus)
# define __THROW __attribute__((__nothrow__))
# define __NTH(fct) __attribute__((__nothrow__)) fct
#else
# define __THROW
# define __NTH(fct) fct
#endif

#endif /* _SYS_CDEFS_H_ */
# Contributor: Fabian Affolter <fabian@affolter-engineering.ch>
# Maintainer: Fabian Affolter <fabian@affolter-engineering.ch>
pkgname=py3-flake8-copyright
_pkgname=flake8-copyright
pkgver=0.2.4
pkgrel=3
pkgdesc="Extension for flake8 which checks for copyrights"
options="!check" # No testsuite
url="https://github.com/savoirfairelinux/flake8-copyright"
arch="noarch"

```

```

license="MIT"
depends="py3-flake8 py3-setuptools"
makedepends="py3-gpep517 py3-wheel"
subpackages="$pkgname-pyc"
source="https://files.pythonhosted.org/packages/source/${_pkgname:0:1}/${_pkgname}/${_pkgname}-${pkgver}.tar.gz"
builddir="$srcdir"/$_pkgname-$pkgver

replaces="py-flake8-copyright"          # Backwards compatibility
provides="py-flake8-copyright=$pkgver-r$pkgrel" # Backwards compatibility

build() {
    gpep517 build-wheel \
        --wheel-dir .dist \
        --output-fd 3 3>&1 >&2
}

package() {
    gpep517 install-wheel --destdir "$pkgdir" \
        .dist/*.whl
}

sha512sums="
a6ab47e1bb715618f075c51f398e18180404871b3b0faf1c2d30701d5203db6bc23771bf22ffb5bafcd8ee856b9b64237
b316bd503ae7dceed6ca284ccd5a74d
flake8-copyright-0.2.4.tar.gz
"

/* $NetBSD: tree.h,v 1.20 2013/09/14 13:20:45 joerg Exp $ */
/* $OpenBSD: tree.h,v 1.13 2011/07/09 00:19:45 pirofti Exp $ */
/* Modified by Void Linux. */
/*
* Copyright 2002 Niels Provos <provos@citi.umich.edu>
* All rights reserved.
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* modification, are permitted provided that the following conditions
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* AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT,
* INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT

```

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* DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY
* THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
* (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF
* THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
*/

```
#ifndef _SYS_TREE_H_
#define _SYS_TREE_H_
```

```
#ifdef __GNUC__
#define __GNUC_PREREQ__(x, y) \
  ((__GNUC__ == (x) && __GNUC_MINOR__ >= (y)) || \
   (__GNUC__ > (x)))
#else
#define __GNUC_PREREQ__(x, y) 0
#endif
```

```
#if __GNUC_PREREQ__(2, 7) || defined(__lint__)
#define _sys_tree_h_unused __attribute__((__unused__))
#else
#define _sys_tree_h_unused /* delete */
#endif
```

/*

* This file defines data structures for different types of trees:
* splay trees and red-black trees.
*
* A splay tree is a self-organizing
data structure. Every operation
* on the tree causes a splay to happen. The splay moves the requested
* node to the root of the tree and partly rebalances it.
*
* This has the benefit that request locality causes faster lookups as
* the requested nodes move to the top of the tree. On the other hand,
* every lookup causes memory writes.
*
* The Balance Theorem bounds the total access time for m operations
* and n inserts on an initially empty tree as $O((m + n)\lg n)$. The
* amortized cost for a sequence of m accesses to a splay tree is $O(\lg n)$;
*
* A red-black tree is a binary search tree with the node color as an
* extra attribute. It fulfills a set of conditions:
* - every search path from the root to a leaf consists of the
* same number of black nodes,
* - each red node (except for the root) has a black parent,
* - each leaf node is black.
*


```

* Every operation on a red-black tree is bounded as  $O(\lg n)$ .
* The maximum height of a red-black tree is  $2\lg(n+1)$ .
*/

#define SPLAY_HEAD(name, type) \
struct name { \
    struct type *sph_root; /* root of the tree */ \
}

#define SPLAY_INITIALIZER(root) \
{ NULL }

#define SPLAY_INIT(root) do { \
    (root)->sph_root = NULL; \
} while (/*CONSTCOND*/ 0)

#define SPLAY_ENTRY(type) \
struct { \
    struct type *spe_left; /* left element */ \
    struct type *spe_right; /* right element */ \
}

#define SPLAY_LEFT(elm, field) (elm)->field.spe_left
#define SPLAY_RIGHT(elm, field) (elm)->field.spe_right
#define SPLAY_ROOT(head) (head)->sph_root
#define SPLAY_EMPTY(head) (SPLAY_ROOT(head) == NULL)

/* SPLAY_ROTATE_{LEFT,RIGHT} expect that tmp hold SPLAY_{RIGHT,LEFT} */
#define SPLAY_ROTATE_RIGHT(head, tmp, field) do { \
    SPLAY_LEFT((head)->sph_root, field) = SPLAY_RIGHT(tmp, field); \
    SPLAY_RIGHT(tmp, field) = (head)->sph_root; \
    (head)->sph_root = tmp; \
} while (/*CONSTCOND*/ 0)

#define SPLAY_ROTATE_LEFT(head, tmp, field) do { \
    SPLAY_RIGHT((head)->sph_root, \
    field) = SPLAY_LEFT(tmp, field); \
    SPLAY_LEFT(tmp, field) = (head)->sph_root; \
    (head)->sph_root = tmp; \
} while (/*CONSTCOND*/ 0)

#define SPLAY_LINKLEFT(head, tmp, field) do { \
    SPLAY_LEFT(tmp, field) = (head)->sph_root; \
    tmp = (head)->sph_root; \
    (head)->sph_root = SPLAY_LEFT((head)->sph_root, field); \
} while (/*CONSTCOND*/ 0)

#define SPLAY_LINKRIGHT(head, tmp, field) do { \

```

```

    SPLAY_RIGHT(tmp, field) = (head)->sph_root; \
    tmp = (head)->sph_root; \
    (head)->sph_root = SPLAY_RIGHT((head)->sph_root, field); \
} while (/*CONSTCOND*/ 0)

#define SPLAY_ASSEMBLE(head, node, left, right, field) do { \
    SPLAY_RIGHT(left, field) = SPLAY_LEFT((head)->sph_root, field); \
    SPLAY_LEFT(right, field) = SPLAY_RIGHT((head)->sph_root, field); \
    SPLAY_LEFT((head)->sph_root, field) = SPLAY_RIGHT(node, field); \
    SPLAY_RIGHT((head)->sph_root, field) = SPLAY_LEFT(node, field); \
} while (/*CONSTCOND*/ 0)

/* Generates prototypes and inline functions */

#define
    SPLAY_PROTOTYPE(name, type, field, cmp) \
void name##_SPLAY(struct name *, struct type *); \
void name##_SPLAY_MINMAX(struct name *, int); \
struct type *name##_SPLAY_INSERT(struct name *, struct type *); \
struct type *name##_SPLAY_REMOVE(struct name *, struct type *); \
\
/* Finds the node with the same key as elm */ \
static __inline struct type * \
name##_SPLAY_FIND(struct name *head, struct type *elm) \
{ \
    if (SPLAY_EMPTY(head)) \
        return(NULL); \
    name##_SPLAY(head, elm); \
    if ((cmp)(elm, (head)->sph_root) == 0) \
        return (head->sph_root); \
    return (NULL); \
} \
\
static __inline _sys_tree_h_unused struct type * \
name##_SPLAY_NEXT(struct name *head, struct type *elm) \
{ \
    name##_SPLAY(head, elm); \
    if (SPLAY_RIGHT(elm, field) != NULL) { \
        elm = SPLAY_RIGHT(elm, field); \
        while (SPLAY_LEFT(elm, field) != NULL) { \
            elm = SPLAY_LEFT(elm, field); \
        } \
    } \
    else \
        elm = NULL; \
    return (elm); \
} \
\

```

```

static _sys_tree_h_unused __inline struct type * \
name##_SPLAY_MIN_MAX(struct name *head, int val) \
{ \
    name##_SPLAY_MINMAX(head, val); \
    return (SPLAY_ROOT(head)); \
}

/* Main splay operation.
 * Moves node close to the key of elm to top
 */
#define SPLAY_GENERATE(name, type, field, cmp) \
struct type * \
name##_SPLAY_INSERT(struct name *head, struct type *elm) \
{ \
    if (SPLAY_EMPTY(head)) { \
        SPLAY_LEFT(elm, field) = SPLAY_RIGHT(elm, field) = NULL; \
    } else { \
        int __comp; \
        name##_SPLAY(head, elm); \
        __comp = (cmp)(elm, (head)->sph_root); \
        if (__comp < 0) { \
            SPLAY_LEFT(elm, field) = SPLAY_LEFT((head)->sph_root, field); \
            SPLAY_RIGHT(elm, field) = (head)->sph_root; \
            SPLAY_LEFT((head)->sph_root, field) = NULL; \
        } else if (__comp > 0) { \
            SPLAY_RIGHT(elm, \
field) = SPLAY_RIGHT((head)->sph_root, field); \
            SPLAY_LEFT(elm, field) = (head)->sph_root; \
            SPLAY_RIGHT((head)->sph_root, field) = NULL; \
        } else \
            return ((head)->sph_root); \
    } \
    (head)->sph_root = (elm); \
    return (NULL); \
} \
\
struct type * \
name##_SPLAY_REMOVE(struct name *head, struct type *elm) \
{ \
    struct type *__tmp; \
    if (SPLAY_EMPTY(head)) \
        return (NULL); \
    name##_SPLAY(head, elm); \
    if ((cmp)(elm, (head)->sph_root) == 0) { \
        if (SPLAY_LEFT((head)->sph_root, field) == NULL) { \
            (head)->sph_root = SPLAY_RIGHT((head)->sph_root, field); \
        } else { \
            __tmp = SPLAY_RIGHT((head)->sph_root, field); \

```

```

(head)->sph_root = SPLAY_LEFT((head)->sph_root, field);\
name##_SPLAY(head, elm); \
SPLAY_RIGHT((head)->sph_root, field) = __tmp; \
} \
return (elm); \
} \
return (NULL); \
} \
\
void \
name##_SPLAY(struct
name *head, struct type *elm) \
{ \
struct type __node, *__left, *__right, *__tmp; \
int __comp; \
\
SPLAY_LEFT(&__node, field) = SPLAY_RIGHT(&__node, field) = NULL;\
__left = __right = &__node; \
\
while ((__comp = (cmp)(elm, (head)->sph_root)) != 0) { \
if (__comp < 0) { \
__tmp = SPLAY_LEFT((head)->sph_root, field);\
if (__tmp == NULL) \
break; \
if ((cmp)(elm, __tmp) < 0){ \
SPLAY_ROTATE_RIGHT(head, __tmp, field);\
if (SPLAY_LEFT((head)->sph_root, field) == NULL)\
break; \
} \
SPLAY_LINKLEFT(head, __right, field); \
} else if (__comp > 0) { \
__tmp = SPLAY_RIGHT((head)->sph_root, field);\
if (__tmp == NULL) \
break; \
if ((cmp)(elm, __tmp) > 0){ \
SPLAY_ROTATE_LEFT(head, __tmp, field);\
if (SPLAY_RIGHT((head)->sph_root, field) == NULL)\
break; \
} \
SPLAY_LINKRIGHT(head, __left, field); \
} \
} \
SPLAY_ASSEMBLE(head,
&__node, __left, __right, field); \
} \
\
/* Splay with either the minimum or the maximum element \
* Used to find minimum or maximum element in tree. \

```

```

*/
\
void name##_SPLAY_MINMAX(struct name *head, int __comp) \
{
\
struct type __node, *__left, *__right, *__tmp; \
\
SPLAY_LEFT(&__node, field) = SPLAY_RIGHT(&__node, field) = NULL;\
__left = __right = &__node; \
\
while (1) { \
if (__comp < 0) { \
__tmp = SPLAY_LEFT((head)->sph_root, field);\
if (__tmp == NULL) \
break; \
if (__comp < 0){ \
SPLAY_ROTATE_RIGHT(head, __tmp, field);\
if (SPLAY_LEFT((head)->sph_root, field) == NULL)\
break; \
} \
SPLAY_LINKLEFT(head, __right, field); \
} else if (__comp > 0) { \
__tmp = SPLAY_RIGHT((head)->sph_root, field);\
if (__tmp == NULL) \
break; \
if (__comp > 0) { \
SPLAY_ROTATE_LEFT(head, __tmp, field);\
if (SPLAY_RIGHT((head)->sph_root, \
field) == NULL)\
break; \
} \
SPLAY_LINKRIGHT(head, __left, field); \
} \
} \
SPLAY_ASSEMBLE(head, &__node, __left, __right, field); \
}

```

```

#define SPLAY_NEGINF -1

```

```

#define SPLAY_INF 1

```

```

#define SPLAY_INSERT(name, x, y) name##_SPLAY_INSERT(x, y)

```

```

#define SPLAY_REMOVE(name, x, y) name##_SPLAY_REMOVE(x, y)

```

```

#define SPLAY_FIND(name, x, y) name##_SPLAY_FIND(x, y)

```

```

#define SPLAY_NEXT(name, x, y) name##_SPLAY_NEXT(x, y)

```

```

#define SPLAY_MIN(name, x) (SPLAY_EMPTY(x) ? NULL \

```

```

: name##_SPLAY_MIN_MAX(x, SPLAY_NEGINF))

```

```

#define SPLAY_MAX(name, x) (SPLAY_EMPTY(x) ? NULL \

```

```

: name##_SPLAY_MIN_MAX(x, SPLAY_INF))

```

```

#define SPLAY_FOREACH(x, name, head) \

```

```

for ((x) = SPLAY_MIN(name, head); \
    (x) != NULL; \
    (x) = SPLAY_NEXT(name, head, x))

/* Macros that define a red-black tree */
#define RB_HEAD(name, type) \
struct name { \
    struct type *rbh_root; /* root of the tree */ \
}

#define RB_INITIALIZER(root) \
{ \
    NULL \
}

#define RB_INIT(root) do { \
    (root)->rbh_root = NULL; \
} while (/*CONSTCOND*/ 0)

#define RB_BLACK 0
#define RB_RED 1
#define RB_ENTRY(type) \
struct { \
    struct type *rbe_left; /* left element */ \
    struct type *rbe_right; /* right element */ \
    struct type *rbe_parent; /* parent element */ \
    int rbe_color; /* node color */ \
}

#define RB_LEFT(elm, field) (elm)->field.rbe_left
#define RB_RIGHT(elm, field) (elm)->field.rbe_right
#define RB_PARENT(elm, field) (elm)->field.rbe_parent
#define RB_COLOR(elm, field) (elm)->field.rbe_color
#define RB_ROOT(head) (head)->rbh_root
#define RB_EMPTY(head) (RB_ROOT(head) == NULL)

#define RB_SET(elm, parent, field) do { \
    RB_PARENT(elm, field) = parent; \
    RB_LEFT(elm, field) = RB_RIGHT(elm, field) = NULL; \
    RB_COLOR(elm, field) = RB_RED; \
} while (/*CONSTCOND*/ 0)

#define RB_SET_BLACKRED(black, red, field) do { \
    RB_COLOR(black, field) = RB_BLACK; \
    RB_COLOR(red, field) \
    = RB_RED; \
} while (/*CONSTCOND*/ 0)

#ifndef RB_AUGMENT

```

```

#define RB_AUGMENT(x) do { } while (/*CONSTCOND*/ 0)
#endif

#define RB_ROTATE_LEFT(head, elm, tmp, field) do { \
    (tmp) = RB_RIGHT(elm, field); \
    if ((RB_RIGHT(elm, field) = RB_LEFT(tmp, field)) != NULL) { \
        RB_PARENT(RB_LEFT(tmp, field), field) = (elm); \
    } \
    RB_AUGMENT(elm); \
    if ((RB_PARENT(tmp, field) = RB_PARENT(elm, field)) != NULL) { \
        if ((elm) == RB_LEFT(RB_PARENT(elm, field), field)) \
            RB_LEFT(RB_PARENT(elm, field), field) = (tmp); \
        else \
            RB_RIGHT(RB_PARENT(elm, field), field) = (tmp); \
    } else \
        (head)->rbh_root = (tmp); \
    RB_LEFT(tmp, field) = (elm); \
    RB_PARENT(elm, field) = (tmp); \
    RB_AUGMENT(tmp); \
    if ((RB_PARENT(tmp, field))) \
        RB_AUGMENT(RB_PARENT(tmp, field)); \
} while (/*CONSTCOND*/ 0)

#define RB_ROTATE_RIGHT(head, elm, tmp, field) do { \
    (tmp) = RB_LEFT(elm, field); \
    if ((RB_LEFT(elm, field) = RB_RIGHT(tmp, field)) \
        != NULL) { \
        RB_PARENT(RB_RIGHT(tmp, field), field) = (elm); \
    } \
    RB_AUGMENT(elm); \
    if ((RB_PARENT(tmp, field) = RB_PARENT(elm, field)) != NULL) { \
        if ((elm) == RB_LEFT(RB_PARENT(elm, field), field)) \
            RB_LEFT(RB_PARENT(elm, field), field) = (tmp); \
        else \
            RB_RIGHT(RB_PARENT(elm, field), field) = (tmp); \
    } else \
        (head)->rbh_root = (tmp); \
    RB_RIGHT(tmp, field) = (elm); \
    RB_PARENT(elm, field) = (tmp); \
    RB_AUGMENT(tmp); \
    if ((RB_PARENT(tmp, field))) \
        RB_AUGMENT(RB_PARENT(tmp, field)); \
} while (/*CONSTCOND*/ 0)

/* Generates prototypes and inline functions */
#define RB_PROTOTYPE(name, type, field, cmp) \
    RB_PROTOTYPE_INTERNAL(name, type, field, cmp,)
#define RB_PROTOTYPE_STATIC(name, type, field, cmp) \

```

```

RB_PROTOTYPE_INTERNAL(name, type, field, cmp, _sys_tree_h_unused static)
#define RB_PROTOTYPE_INTERNAL(name, type, field, cmp, attr) \
attr void name##_RB_INSERT_COLOR(struct name *, struct
type *); \
attr void name##_RB_REMOVE_COLOR(struct name *, struct type *, struct type *);\
attr struct type *name##_RB_REMOVE(struct name *, struct type *); \
attr struct type *name##_RB_INSERT(struct name *, struct type *); \
attr struct type *name##_RB_FIND(struct name *, struct type *); \
attr struct type *name##_RB_NFIND(struct name *, struct type *); \
attr struct type *name##_RB_NEXT(struct type *); \
attr struct type *name##_RB_PREV(struct type *); \
attr struct type *name##_RB_MINMAX(struct name *, int); \
\

/* Main rb operation.
* Moves node close to the key of elm to top
*/
#define RB_GENERATE(name, type, field, cmp) \
RB_GENERATE_INTERNAL(name, type, field, cmp,)
#define RB_GENERATE_STATIC(name, type, field, cmp) \
RB_GENERATE_INTERNAL(name, type, field, cmp, _sys_tree_h_unused static)
#define RB_GENERATE_INTERNAL(name, type, field, cmp, attr) \
attr void \
name##_RB_INSERT_COLOR(struct name *head, struct type *elm) \
{ \
struct type
*parent, *gparent, *tmp; \
while ((parent = RB_PARENT(elm, field)) != NULL && \
RB_COLOR(parent, field) == RB_RED) { \
gparent = RB_PARENT(parent, field); \
if (parent == RB_LEFT(gparent, field)) { \
tmp = RB_RIGHT(gparent, field); \
if (tmp && RB_COLOR(tmp, field) == RB_RED) { \
RB_COLOR(tmp, field) = RB_BLACK; \
RB_SET_BLACKRED(parent, gparent, field);\
elm = gparent; \
continue; \
} \
if (RB_RIGHT(parent, field) == elm) { \
RB_ROTATE_LEFT(head, parent, tmp, field);\
tmp = parent; \
parent = elm; \
elm = tmp; \
} \
RB_SET_BLACKRED(parent, gparent, field); \
RB_ROTATE_RIGHT(head, gparent, tmp, field); \
} else { \
tmp = RB_LEFT(gparent, field); \

```



```

if (tmp && RB_COLOR(tmp, field) == RB_RED) { \
    RB_COLOR(tmp, field) = RB_BLACK; \
    RB_SET_BLACKRED(parent, gparent, field);\
    elm = gparent; \
    continue; \
} \
if (RB_LEFT(parent, field) == elm)
{ \
    RB_ROTATE_RIGHT(head, parent, tmp, field);\
    tmp = parent; \
    parent = elm; \
    elm = tmp; \
} \
RB_SET_BLACKRED(parent, gparent, field); \
RB_ROTATE_LEFT(head, gparent, tmp, field);\
} \
} \
RB_COLOR(head->rbh_root, field) = RB_BLACK; \
} \
\
attr void \
name##_RB_REMOVE_COLOR(struct name *head, struct type *parent, struct type *elm) \
{ \
    struct type *tmp; \
    while ((elm == NULL || RB_COLOR(elm, field) == RB_BLACK) && \
        elm != RB_ROOT(head)) { \
        if (RB_LEFT(parent, field) == elm) { \
            tmp = RB_RIGHT(parent, field); \
            if (RB_COLOR(tmp, field) == RB_RED) { \
                RB_SET_BLACKRED(tmp, parent, field); \
                RB_ROTATE_LEFT(head, parent, tmp, field);\
                tmp = RB_RIGHT(parent, field); \
            } \
            if ((RB_LEFT(tmp, field) == NULL || \
                RB_COLOR(RB_LEFT(tmp, field), field) == RB_BLACK) && \
                (RB_RIGHT(tmp, field) == NULL || \
                RB_COLOR(RB_RIGHT(tmp, field), field) == RB_BLACK)) {\
                RB_COLOR(tmp, field) = RB_RED; \
                elm = parent; \
                parent = RB_PARENT(elm, field); \
            } else { \
                if (RB_RIGHT(tmp, field) == NULL || \
                    RB_COLOR(RB_RIGHT(tmp, field), field) == RB_BLACK) {\
                    struct type *oleft; \
                    if ((oleft = RB_LEFT(tmp, field)) \
                        != NULL) \
                        RB_COLOR(oleft, field) = RB_BLACK;\

```

```

RB_COLOR(tmp, field) = RB_RED; \
RB_ROTATE_RIGHT(head, tmp, oleft, field);\
tmp = RB_RIGHT(parent, field); \
} \
RB_COLOR(tmp, field) = RB_COLOR(parent, field);\
RB_COLOR(parent, field) = RB_BLACK; \
if (RB_RIGHT(tmp, field)) \
    RB_COLOR(RB_RIGHT(tmp, field), field) = RB_BLACK;\
RB_ROTATE_LEFT(head, parent, tmp, field);\
elm = RB_ROOT(head); \
break; \
} \
} else { \
    tmp = RB_LEFT(parent, field); \
    if (RB_COLOR(tmp, field) == RB_RED) { \
        RB_SET_BLACKRED(tmp, parent, field); \
        RB_ROTATE_RIGHT(head, parent, tmp, field);\
        tmp
= RB_LEFT(parent, field); \
    } \
    if ((RB_LEFT(tmp, field) == NULL || \
        RB_COLOR(RB_LEFT(tmp, field), field) == RB_BLACK) &&\
        (RB_RIGHT(tmp, field) == NULL || \
        RB_COLOR(RB_RIGHT(tmp, field), field) == RB_BLACK)) {\
        RB_COLOR(tmp, field) = RB_RED; \
        elm = parent; \
        parent = RB_PARENT(elm, field); \
    } else { \
        if (RB_LEFT(tmp, field) == NULL || \
            RB_COLOR(RB_LEFT(tmp, field), field) == RB_BLACK) {\
            struct type *oright; \
            if ((oright = RB_RIGHT(tmp, field)) \
                != NULL) \
                RB_COLOR(oright, field) = RB_BLACK;\
            RB_COLOR(tmp, field) = RB_RED; \
            RB_ROTATE_LEFT(head, tmp, oright, field);\
            tmp = RB_LEFT(parent, field); \
        } \
        RB_COLOR(tmp, field) = RB_COLOR(parent, field);\
        RB_COLOR(parent, field) = RB_BLACK; \
        if (RB_LEFT(tmp, field)) \
            RB_COLOR(RB_LEFT(tmp, field), field) = RB_BLACK;\
        RB_ROTATE_RIGHT(head, parent, tmp, field);\
        elm = RB_ROOT(head); \
        break; \
    } \
} \
} \
} \

```

```

if
(elm)    \
    RB_COLOR(elm, field) = RB_BLACK; \
}      \
    \
attr struct type *    \
name##_RB_REMOVE(struct name *head, struct type *elm) \
{      \
    struct type *child, *parent, *old = elm; \
    int color;    \
    if (RB_LEFT(elm, field) == NULL) \
        child = RB_RIGHT(elm, field); \
    else if (RB_RIGHT(elm, field) == NULL) \
        child = RB_LEFT(elm, field); \
    else {      \
        struct type *left; \
        elm = RB_RIGHT(elm, field); \
        while ((left = RB_LEFT(elm, field)) != NULL) \
            elm = left; \
        child = RB_RIGHT(elm, field); \
        parent = RB_PARENT(elm, field); \
        color = RB_COLOR(elm, field); \
        if (child) \
            RB_PARENT(child, field) = parent; \
        if (parent) { \
            if (RB_LEFT(parent, field) == elm) \
                RB_LEFT(parent, field) = child; \
            else \
                RB_RIGHT(parent, field) = child; \
            RB_AUGMENT(parent); \
        } else \
            RB_ROOT(head)
= child; \
    if (RB_PARENT(elm, field) == old) \
        parent = elm; \
    (elm)->field = (old)->field; \
    if (RB_PARENT(old, field)) { \
        if (RB_LEFT(RB_PARENT(old, field), field) == old)\
            RB_LEFT(RB_PARENT(old, field), field) = elm;\
        else \
            RB_RIGHT(RB_PARENT(old, field), field) = elm;\
        RB_AUGMENT(RB_PARENT(old, field)); \
    } else \
        RB_ROOT(head) = elm; \
    RB_PARENT(RB_LEFT(old, field), field) = elm; \
    if (RB_RIGHT(old, field)) \
        RB_PARENT(RB_RIGHT(old, field), field) = elm; \
    if (parent) { \

```

```

    left = parent; \
    do { \
        RB_AUGMENT(left); \
    } while ((left = RB_PARENT(left, field)) != NULL); \
} \
goto color; \
} \
parent = RB_PARENT(elm, field); \
color = RB_COLOR(elm, field); \
if (child) \
    RB_PARENT(child, field) = parent; \
if (parent) { \
    if (RB_LEFT(parent, field) == elm) \
        RB_LEFT(parent, field) = child; \
    else \
        RB_RIGHT(parent,
field) = child; \
    RB_AUGMENT(parent); \
} else \
    RB_ROOT(head) = child; \
color: \
if (color == RB_BLACK) \
    name##_RB_REMOVE_COLOR(head, parent, child); \
return (old); \
} \
\
/* Inserts a node into the RB tree */ \
attr struct type * \
name##_RB_INSERT(struct name *head, struct type *elm) \
{ \
    struct type *tmp; \
    struct type *parent = NULL; \
    int comp = 0; \
    tmp = RB_ROOT(head); \
    while (tmp) { \
        parent = tmp; \
        comp = (cmp)(elm, parent); \
        if (comp < 0) \
            tmp = RB_LEFT(tmp, field); \
        else if (comp > 0) \
            tmp = RB_RIGHT(tmp, field); \
        else \
            return (tmp); \
    } \
    RB_SET(elm, parent, field); \
    if (parent != NULL) { \
        if (comp < 0) \
            RB_LEFT(parent, field) = elm; \

```

```

else    \
    RB_RIGHT(parent, field) = elm; \
    RB_AUGMENT(parent); \
} else    \
    RB_ROOT(head) = elm; \
name##_RB_INSERT_COLOR(head,
elm); \
return (NULL); \
} \
    \

/* Finds the node with the same key as elm */ \
attr struct type *    \
name##_RB_FIND(struct name *head, struct type *elm) \
{    \
    struct type *tmp = RB_ROOT(head); \
    int comp; \
    while (tmp) {    \
        comp = cmp(elm, tmp); \
        if (comp < 0) \
            tmp = RB_LEFT(tmp, field); \
        else if (comp > 0) \
            tmp = RB_RIGHT(tmp, field); \
        else \
            return (tmp); \
    } \
    return (NULL); \
} \
    \

/* Finds the first node greater than or equal to the search key */ \
attr struct type *    \
name##_RB_NFIND(struct name *head, struct type *elm) \
{    \
    struct type *tmp = RB_ROOT(head); \
    struct type *res = NULL; \
    int comp; \
    while (tmp) {    \
        comp = cmp(elm, tmp); \
        if (comp < 0) { \
            res = tmp; \
            tmp = RB_LEFT(tmp, field); \
        } \
        else if (comp > 0) \
            tmp =
RB_RIGHT(tmp, field); \
        else \
            return (tmp); \
    } \
    return (res); \
}

```

```

    }    \
        \
/* ARGSUSED */    \
attr struct type *    \
name##_RB_NEXT(struct type *elm)    \
{    \
    if (RB_RIGHT(elm, field)) {    \
        elm = RB_RIGHT(elm, field);    \
        while (RB_LEFT(elm, field))    \
            elm = RB_LEFT(elm, field);    \
    } else {    \
        if (RB_PARENT(elm, field) &&    \
            (elm == RB_LEFT(RB_PARENT(elm, field), field)))    \
            elm = RB_PARENT(elm, field);    \
        else {    \
            while (RB_PARENT(elm, field) &&    \
                (elm == RB_RIGHT(RB_PARENT(elm, field), field)))    \
                elm = RB_PARENT(elm, field);    \
            elm = RB_PARENT(elm, field);    \
        }    \
    }    \
    return (elm);    \
}    \
    \
/* ARGSUSED */    \
attr struct type *    \
name##_RB_PREV(struct type *elm)    \
{    \
    if (RB_LEFT(elm, field)) {    \
        elm = RB_LEFT(elm, field);    \
        while (RB_RIGHT(elm, field))    \
            elm = RB_RIGHT(elm, field);    \
    }    \
    else {    \
        if (RB_PARENT(elm, field) &&    \
            (elm == RB_RIGHT(RB_PARENT(elm, field), field)))    \
            elm = RB_PARENT(elm, field);    \
        else {    \
            while (RB_PARENT(elm, field) &&    \
                (elm == RB_LEFT(RB_PARENT(elm, field), field)))    \
                elm = RB_PARENT(elm, field);    \
            elm = RB_PARENT(elm, field);    \
        }    \
    }    \
    return (elm);    \
}    \
    \
attr struct type *    \

```

```

name##_RB_MINMAX(struct name *head, int val) \
{ \
    struct type *tmp = RB_ROOT(head); \
    struct type *parent = NULL; \
    while (tmp) { \
        parent = tmp; \
        if (val < 0) \
            tmp = RB_LEFT(tmp, field); \
        else \
            tmp = RB_RIGHT(tmp, field); \
    } \
    return (parent); \
}

#define RB_NEGINF -1
#define RB_INF 1

#define RB_INSERT(name, x, y) name##_RB_INSERT(x, y)
#define RB_REMOVE(name, x, y) name##_RB_REMOVE(x, y)
#define RB_FIND(name, x, y) name##_RB_FIND(x, y)
#define RB_NFIND(name, x, y) name##_RB_NFIND(x, \
y)
#define RB_NEXT(name, x, y) name##_RB_NEXT(y)
#define RB_PREV(name, x, y) name##_RB_PREV(y)
#define RB_MIN(name, x) name##_RB_MINMAX(x, RB_NEGINF)
#define RB_MAX(name, x) name##_RB_MINMAX(x, RB_INF)

#define RB_FOREACH(x, name, head) \
for ((x) = RB_MIN(name, head); \
(x) != NULL; \
(x) = name##_RB_NEXT(x))

#define RB_FOREACH_FROM(x, name, y) \
for ((x) = (y); \
((x) != NULL) && ((y) = name##_RB_NEXT(x), (x) != NULL); \
(x) = (y))

#define RB_FOREACH_SAFE(x, name, head, y) \
for ((x) = RB_MIN(name, head); \
((x) != NULL) && ((y) = name##_RB_NEXT(x), (x) != NULL); \
(x) = (y))

#define RB_FOREACH_REVERSE(x, name, head) \
for ((x) = RB_MAX(name, head); \
(x) != NULL; \
(x) = name##_RB_PREV(x))

#define RB_FOREACH_REVERSE_FROM(x, name, y) \

```

```

for ((x) = (y);    \
    ((x) != NULL) && ((y) = name##_RB_PREV(x), (x) != NULL); \
    (x) = (y))

#define RB_FOREACH_REVERSE_SAFE(x, name,
head, y) \
for ((x) = RB_MAX(name, head);    \
    ((x) != NULL) && ((y) = name##_RB_PREV(x), (x) != NULL); \
    (x) = (y))

#endif /* _SYS_TREE_H_ */
MIT
# Contributor: Wen Heping <wenhepingalpine@sohu.com>
# Maintainer: Wen Heping <wenhepingalpine@sohu.com>
pkgname=perl-software-license
pkgver=0.104007
pkgrel=0
# _pkgreal is used by apkbuild-cpan to find modules at MetaCpan
_pkgreal=Software-License
pkgdesc="packages that provide templated software licenses"
url="https://metacpan.org/release/Software-License/"
arch="noarch"
license="GPL-1.0-or-later OR Artistic-1.0-Perl"
depends="perl perl-data-section perl-text-template"
checkdepends="perl-try-tiny"
subpackages="$pkgname-doc"
source="https://cpan.metacpan.org/authors/id/L/LE/LEONT/Software-License-$pkgver.tar.gz"
buildid="$srcdir/${_pkgreal}-${pkgver}"

build() {
    export CFLAGS=$(perl -MConfig -E 'say $Config{ccflags}')
    PERL_MM_USE_DEFAULT=1 perl -I. Makefile.PL \
        INSTALLDIRS=vendor \
        NO_PACKLIST=1 \
        NO_PERLLOCAL=1
    make
}

check() {
    export CFLAGS=$(perl -MConfig -E 'say $Config{ccflags}')
    make test
}

package() {
    make DESTDIR="$pkgdir" install
}

sha512sums=""

```


12d75e9583b3013d9b4a282467f1ac80ab6b7f3251926d66591d01404489b528f22adc396dfd4528a0f0ca650f0eed6d
9c959e69eace2169c6ed1cffe5277e4
Software-License-0.104007.tar.gz
"

1.73 alpine-base 3.21.4-r0

1.73.1 Available under license :

```
# Contributor: Natanael Copa <ncopa@alpinelinux.org>
# Maintainer: Natanael Copa <ncopa@alpinelinux.org>
pkgname=alpine-base
pkgver=3.21.4
pkgrel=0
pkgdesc="Meta package for minimal alpine base"
url="https://alpinelinux.org"
arch="noarch"
license="MIT"
The MIT License
```

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1.74 openssl 3.0.15

1.74.1 Available under license :

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1.75 ssl-client 1.37.0-r13

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pkgrel=10
#_pkgreal is used by apkbuild-cpan to find modules at MetaCpan
_pkgreal=BSD-Resource
pkgdesc="Perl extension implements the BSD process resource limit functions"
url="https://metacpan.org/release/BSD-Resource/"
arch="all"
license="Artistic-2.0 OR LGPL-2.0"
depends="perl"
makedepends="perl-dev"
subpackages="$pkgname-doc"
source="https://cpan.metacpan.org/authors/id/J/JH/JHI/BSD-Resource-$pkgver.tar.gz"
buildid="$srcdir/$_pkgreal-$pkgver"

build() {
    export CFLAGS=$(perl -MConfig -E 'say $Config{ccflags}')
    PERL_MM_USE_DEFAULT=1 perl -I. Makefile.PL \
        INSTALLDIRS=vendor \
        NO_PACKLIST=1 \
        NO_PERLLOCAL=1
    make
}

check() {
    export CFLAGS=$(perl -MConfig -E 'say $Config{ccflags}')
    make test
}

package() {
    make DESTDIR="$pkgdir" install
}

sha512sums="
d0032d41c7c0468ed1c6d8f57b885f6cb97a5039d754c8cb60b2067daedaf53bd15fb6561a3d0f828df16dfa5417f663b
8065ba65f4fea16dc9262728b3b6b85
    BSD-Resource-1.2911.tar.gz
"

bzip2 applet in busybox is based on lightly-modified source
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```
# Contributor: Maxim Karasev <begs@disroot.org>
# Maintainer: mio <miyopan@e.email>
pkgname=bsd-games
pkgver=3.3
pkgrel=2
pkgdesc="traditional text mode games from BSD"
url="https://bsd-games.sourceforge.io/"
arch="all"
license="BSD-3-Clause"
install="$pkgname.post-install"
makedepends="ncurses-dev coreutils" # configure causes busybox expr error
subpackages="$pkgname-doc"
source="https://sourceforge.net/projects/bsd-games/files/bsd-games-$pkgver.tar.gz
0001-bsd-games-scores-dir.patch
"
options="!check" # no tests
```

```
build() {
# some GNU autoconf options are ignored, but it works
./configure \
--build=$CBUILD \
--host=$CHOST \
--prefix=/usr \
--sysconfdir=/etc \
```

```
--mandir=/usr/share/man \
--scoredir=/usr/share/$pkgname
make
}
```

```
package() {
make DESTDIR="$pkgdir" install
install -Dm644 LICENSE "$pkgdir"/usr/share/licenses/bsd-games/LICENSE
}
```

```
sha512sums="
aaf36d09d4fe68514a5c279063d7e77a9a9a84c447037cba974b29faa07eb80c2aab2379d0699c196b5c27ffe1b2bb2c6
8d3390143e0e62d5e3d210ccfb61294
bsd-games-3.3.tar.gz
e1def0d4835a877242c4173fae862e278a7858738e0bacacbb045a42bcabec2aa7c72d000bbd2421ce35fe66cdc1f52c0
577b7e278029ca5ed50f7aab22319f6 0001-bsd-games-scores-dir.patch
"
```

Vintage Dreams Waves v 2.0. for Creative Labs' AWE Soundcards
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vintagedreamworks@hotmail.com

<http://www.geocities.com/SiliconValley/Campus/8645/index.html>

<http://members.nbc.com/silicon39/>

<http://www.mp3.com/silicon39>

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```
# Contributor: Carlo Landmeter <clandmeter@alpinelinux.org>
# Maintainer: Kevin Daudt <kdaudt@alpinelinux.org>
pkgname=spdx-licenses
pkgver=3.24.0
pkgrel=0
pkgdesc="Various data formats for the SPDX License List"
url="https://spdx.org/"
arch="noarch"
options="!check" # no test suite
license="CC-BY-3.0"
source="license-list-data-$pkgver.tar.gz::https://github.com/spdx/license-list-data/archive/v$pkgver.tar.gz"
builddir="$srcdir/license-list-data-$pkgver"
subpackages="$pkgname-list"
```

```
_types="html json rdfa rdft rdfturtle rdfxml template text"
```

```
for type in $_types; do
    subpackages="$subpackages $pkgname-$type:_subpkg"
done
```

```
package() {
    mkdir -p "$pkgdir"
}
```

```
_subpkg() {
    local type=${subpkgname/$pkgname-/}
    pkgdesc="$pkgdesc ($type)"
    install_if="$pkgname=$pkgver-r$pkgrel"
    mkdir -p "$subpkgdir"/usr/share/spdx
    cp -r "$builddir"/$type "$subpkgdir"/usr/share/spdx/
}
```

```
list() {
    pkgdesc="$pkgdesc (licence list)"
    mkdir -p "$subpkgdir"/usr/share/spdx
    local i; for i in "$builddir"/text/*.txt;
```

```
do
local license=${i##*/}
echo ${license%.*} >> "$subpkgdir"/usr/share/spdx/license.lst
done
}
```

```
sha512sums="
6eb81424e1b3173dbd8e17859b2e15dfe1c2af8f4da59b7dad0729c038a4cbdba95c34c2c546285fcdbbd41562e39575e
6a6ebb9463b70121e0a12b99d1307e7  license-list-data-3.24.0.tar.gz
"
```

mini_sendmail - accept email on behalf of real sendmail

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Maintainer: Natanael Copa <ncopa@alpinelinux.org>

pkgname=libart-lgpl

pkgver=2.3.21

pkgrel=8

pkgdesc="A library for high-performance 2D graphics"

url="https://www.levien.com/libart/"

arch="all"

options="!check" # No test suite.

license="LGPL-2.0-or-later"

subpackages="\$pkgname-dev"

source="https://download.gnome.org/sources/libart-lgpl/2.3/libart-lgpl-\$pkgver.tar.bz2"

"

```
builddir="$srcdir"/libart_lgpl-$pkgver
```

```
prepare() {  
    update_config_sub  
    default_prepare  
}
```

```
build() {  
    ./configure \  
    --build=$CBUILD \  
    --host=$CHOST \  
    --prefix=/usr  
    make  
}
```

```
package() {  
    make DESTDIR="$pkgdir" install  
}
```

```
sha512sums="8a632a6a4da59e5e8c02ec2f5a57e36d182b325b46513765425e5f171ff9ae326af1b133725beba28f7e7  
6654309e001aee9bace727b5b4c8589405256a3c020 libart_lgpl-2.3.21.tar.bz2"
```

```
# Contributor: Patrycja Rosa <alpine@ptrcnull.me>
```

```
# Maintainer: Patrycja Rosa <alpine@ptrcnull.me>
```

```
pkgname=bsd-compat-headers
```

```
pkgver=0.7.2
```

```
pkgrel=6
```

```
pkgdesc="BSD compatibility headers (cdefs, queue, tree)"
```

```
url="https://gitlab.alpinelinux.org/alpine/aports"
```

```
arch="noarch"
```

```
license="BSD-2-Clause AND BSD-3-Clause"
```

```
source="
```

```
    cdefs.h
```

```
    queue.h
```

```
    tree.h
```

```
"
```

```
builddir="$srcdir"
```

```
options="!check" # just headers
```

```
package() {  
    mkdir -p "$pkgdir"  
    install -Dm644 -t "$pkgdir"/usr/include/sys \  
    cdefs.h queue.h tree.h  
}
```

```
sha512sums="
```

```
37c8fc73c7aea7b490f7850927e2bb91d12137c9e59e22c084146d515696dbc7973b5de92f4c987ba080dd2502ba8312
```

```
7006442c3f019b6447a620c0cae73178 cdefs.h
```

```
2f0d5e6e4dc3350285cf17009265dddcbe12431c111868eea39bc8cb038ab7c1f2acacbb21735c4e9d4a1fd106a8fc0f86
```

11ea33987d4faba37dde5ce6da0750 queue.h
d9ac210d81feb8ad2655bc80fb065d3fe20ae4417b32b4a1711e6738a4870140005c13373b5d1846ef3ce5ae6da45f2da
cef2092881eded0a2e94f6a07752ef3 tree.h
"

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The X-Spline code was written Carole Blanc (blanc@labri.u-bordeaux.fr) and Christophe Schlick (schlick@labri.u-bordeaux.fr) starting from an initial implementation done by C. Feuille, S. Grosbois, L. Maziere and L. Minihot as a student practice (Universite Bordeaux, France). For additional information about X-splines, see:

"X-Splines: A Spline Model Designed for the End User" by C. Blanc and C. Schlick, Proceedings of SIGGRAPH'95

<http://dept-info.labri.u-bordeaux.fr/~schlick/DOC/sig1.html>

/* \$NetBSD: queue.h,v 1.70 2015/11/02 15:21:23 christos Exp \$ */

/*

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- *
- * @(#)queue.h 8.5 (Berkeley) 8/20/94
- */

```
#ifndef _SYS_QUEUE_H_
#define _SYS_QUEUE_H_
```

```
/*
 * This file defines five types of data structures: singly-linked lists,
 * lists, simple queues, tail queues, and circular queues.
 *
 * A singly-linked list is headed by a single forward pointer. The
 * elements are singly linked for minimum space and
 * pointer manipulation
 * overhead at the expense of O(n) removal for arbitrary elements. New
 * elements can be added to the list after an existing element or at the
 * head of the list. Elements being removed from the head of the list
 * should use the explicit macro for this purpose for optimum
 * efficiency. A singly-linked list may only be traversed in the forward
 * direction. Singly-linked lists are ideal for applications with large
 * datasets and few or no removals or for implementing a LIFO queue.
 *
 * A list is headed by a single forward pointer (or an array of forward
 * pointers for a hash table header). The elements are doubly linked
 * so that an arbitrary element can be removed without a need to
 * traverse the list. New elements can be added to the list before
 * or after an existing element or at the head of the list. A list
 * may only be traversed in the forward direction.
 *
 * A simple queue is headed by a pair of pointers, one the head of the
 * list and the
 * other to the tail of the list. The elements are singly
 * linked to save space, so elements can only be removed from the
```

```

* head of the list. New elements can be added to the list after
* an existing element, at the head of the list, or at the end of the
* list. A simple queue may only be traversed in the forward direction.
*
* A tail queue is headed by a pair of pointers, one to the head of the
* list and the other to the tail of the list. The elements are doubly
* linked so that an arbitrary element can be removed without a need to
* traverse the list. New elements can be added to the list before or
* after an existing element, at the head of the list, or at the end of
* the list. A tail queue may be traversed in either direction.
*
* A circle queue is headed by a pair of pointers, one to the head of the
* list and the other to the tail of the list. The elements are doubly
* linked so that an arbitrary element can be removed without a need to
* traverse the list. New elements
can be added to the list before or after
* an existing element, at the head of the list, or at the end of the list.
* A circle queue may be traversed in either direction, but has a more
* complex end of list detection.
*
* For details on the use of these macros, see the queue(3) manual page.
*/

/*
* Include the definition of NULL only on NetBSD because sys/null.h
* is not available elsewhere. This conditional makes the header
* portable and it can simply be dropped verbatim into any system.
* The caveat is that on other systems some other header
* must provide NULL before the macros can be used.
*/
#ifdef __NetBSD__
#include <sys/null.h>
#endif

#if defined(QEUEDEBUG)
# if defined(_KERNEL)
#  define QEUEDEBUG_ABORT(...) panic(__VA_ARGS__)
# else
#  include <err.h>
#  define QEUEDEBUG_ABORT(...) err(1, __VA_ARGS__)
# endif
#endif

/*
* Singly-linked List definitions.
*/
#define SLIST_HEAD(name, type) \
struct name { \

```

```

struct type *slh_first; /* first
element */ \
}

#define SLIST_HEAD_INITIALIZER(head) \
{ NULL }

#define SLIST_ENTRY(type) \
struct { \
    struct type *sle_next; /* next element */ \
}

/*
 * Singly-linked List access methods.
 */

#define SLIST_FIRST(head) ((head)->slh_first)
#define SLIST_END(head) NULL
#define SLIST_EMPTY(head) ((head)->slh_first == NULL)
#define SLIST_NEXT(elm, field) ((elm)->field.sle_next)

#define SLIST_FOREACH(var, head, field) \
for((var) = (head)->slh_first; \
    (var) != SLIST_END(head); \
    (var) = (var)->field.sle_next)

#define SLIST_FOREACH_SAFE(var, head, field, tvar) \
for ((var) = SLIST_FIRST((head)); \
    (var) != SLIST_END(head) && \
    ((tvar) = SLIST_NEXT((var), field), 1); \
    (var) = (tvar))

/*
 * Singly-linked List functions.
 */

#define SLIST_INIT(head) do { \
    (head)->slh_first = SLIST_END(head); \
} while (/*CONSTCOND*/0)

#define SLIST_INSERT_AFTER(slistelm, elm, field) do { \
    (elm)->field.sle_next = (slistelm)->field.sle_next; \
    (slistelm)->field.sle_next \
    = (elm); \
} while (/*CONSTCOND*/0)

#define SLIST_INSERT_HEAD(head, elm, field) do { \
    (elm)->field.sle_next = (head)->slh_first; \
    (head)->slh_first = (elm); \
} while (/*CONSTCOND*/0)

```

```

#define SLIST_REMOVE_AFTER(slistelm, field) do { \
    (slistelm)->field.sle_next = \
        SLIST_NEXT(SLIST_NEXT((slistelm), field), field); \
} while (/*CONSTCOND*/0)

#define SLIST_REMOVE_HEAD(head, field) do { \
    (head)->slh_first = (head)->slh_first->field.sle_next; \
} while (/*CONSTCOND*/0)

#define SLIST_REMOVE(head, elm, type, field) do { \
    if ((head)->slh_first == (elm)) { \
        SLIST_REMOVE_HEAD((head), field); \
    } \
    else { \
        struct type *curelm = (head)->slh_first; \
        while(curelm->field.sle_next != (elm)) \
            curelm = curelm->field.sle_next; \
        curelm->field.sle_next = \
            curelm->field.sle_next->field.sle_next; \
    } \
} while (/*CONSTCOND*/0)

/*
 * List definitions.
 */
#define LIST_HEAD(name, type) \
struct name { \
    struct type *lh_first; /* first element */ \
}

#define LIST_HEAD_INITIALIZER(head) \
{ NULL }

#define LIST_ENTRY(type) \
struct { \
    struct type *le_next; /* next element */ \
    struct type **le_prev; /* address of previous next element */ \
}

/*
 * List access methods.
 */
#define LIST_FIRST(head) ((head)->lh_first)
#define LIST_END(head) NULL
#define LIST_EMPTY(head) ((head)->lh_first == LIST_END(head))
#define LIST_NEXT(elm, field) ((elm)->field.le_next)

```



```

#define LIST_FOREACH(var, head, field) \
for ((var) = ((head)->lh_first); \
    (var) != LIST_END(head); \
    (var) = ((var)->field.le_next))

#define LIST_FOREACH_SAFE(var, head, field, tvar) \
for ((var) = LIST_FIRST((head)); \
    (var) != LIST_END(head) && \
    ((tvar) = LIST_NEXT((var), field), 1); \
    (var) = (tvar))

#define LIST_MOVE(head1, head2) do { \
    LIST_INIT((head2)); \
    if (!LIST_EMPTY((head1))) \
    { \
        (head2)->lh_first = (head1)->lh_first; \
        LIST_INIT((head1)); \
    } \
} while (/*CONSTCOND*/0)

/*
 * List functions.
 */
#if defined(QUEUEDEBUG)
#define QUEUEDEBUG_LIST_INSERT_HEAD(head, elm, field) \
if ((head)->lh_first && \
    (head)->lh_first->field.le_prev != &(head)->lh_first) \
    QUEUEDEBUG_ABORT("LIST_INSERT_HEAD %p %s:%d", (head), \
        __FILE__, __LINE__);
#define QUEUEDEBUG_LIST_OP(elm, field) \
if ((elm)->field.le_next && \
    (elm)->field.le_next->field.le_prev != \
    &(elm)->field.le_next) \
    QUEUEDEBUG_ABORT("LIST_* forw %p %s:%d", (elm), \
        __FILE__, __LINE__); \
if (*(elm)->field.le_prev != (elm)) \
    QUEUEDEBUG_ABORT("LIST_* back %p %s:%d", (elm), \
        __FILE__, __LINE__);
#define QUEUEDEBUG_LIST_POSTREMOVE(elm, field) \
(elm)->field.le_next = (void *)1L; \
(elm)->field.le_prev = (void *)1L;
#else
#define QUEUEDEBUG_LIST_INSERT_HEAD(head, elm, field)
#define QUEUEDEBUG_LIST_OP(elm, field)
#define QUEUEDEBUG_LIST_POSTREMOVE(elm, field)
#endif

```

```

#define LIST_INIT(head) do { \
    (head)->lh_first = LIST_END(head); \
} while (/*CONSTCOND*/0)

#define LIST_INSERT_AFTER(listelm, elm, field) do { \
    QUEUEDEBDEBUG_LIST_OP((listelm), field) \
    if (((elm)->field.le_next = (listelm)->field.le_next) != \
        LIST_END(head)) \
        (listelm)->field.le_next->field.le_prev = \
            &(elm)->field.le_next; \
    (listelm)->field.le_next = (elm); \
    (elm)->field.le_prev = &(listelm)->field.le_next; \
} while (/*CONSTCOND*/0)

#define LIST_INSERT_BEFORE(listelm, elm, field) do { \
    QUEUEDEBDEBUG_LIST_OP((listelm), field) \
    (elm)->field.le_prev = (listelm)->field.le_prev; \
    (elm)->field.le_next = (listelm); \
    *(listelm)->field.le_prev = (elm); \
    (listelm)->field.le_prev = &(elm)->field.le_next; \
} while (/*CONSTCOND*/0)

#define LIST_INSERT_HEAD(head, elm, field) do { \
    QUEUEDEBDEBUG_LIST_INSERT_HEAD((head), (elm), field) \
    if (((elm)->field.le_next \
        = (head)->lh_first) != LIST_END(head)) \
        (head)->lh_first->field.le_prev = &(elm)->field.le_next; \
    (head)->lh_first = (elm); \
    (elm)->field.le_prev = &(head)->lh_first; \
} while (/*CONSTCOND*/0)

#define LIST_REMOVE(elm, field) do { \
    QUEUEDEBDEBUG_LIST_OP((elm), field) \
    if ((elm)->field.le_next != NULL) \
        (elm)->field.le_next->field.le_prev = \
            (elm)->field.le_prev; \
    *(elm)->field.le_prev = (elm)->field.le_next; \
    QUEUEDEBDEBUG_LIST_POSTREMOVE((elm), field) \
} while (/*CONSTCOND*/0)

#define LIST_REPLACE(elm, elm2, field) do { \
    if (((elm2)->field.le_next = (elm)->field.le_next) != NULL) \
        (elm2)->field.le_next->field.le_prev = \
            &(elm2)->field.le_next; \
    (elm2)->field.le_prev = (elm)->field.le_prev; \
    *(elm2)->field.le_prev = (elm2); \
    QUEUEDEBDEBUG_LIST_POSTREMOVE((elm), field) \
} while (/*CONSTCOND*/0)

```

```

} while (/*CONSTCOND*/0)

/*
 * Simple queue definitions.
 */
#define SIMPLEQ_HEAD(name, type)  \
struct name {  \
    struct  \
    type *sqh_first; /* first element */  \
    struct type **sqh_last; /* addr of last next element */  \
}

#define SIMPLEQ_HEAD_INITIALIZER(head)  \
{ NULL, &(head).sqh_first }

#define SIMPLEQ_ENTRY(type)  \
struct {  \
    struct type *sqe_next; /* next element */  \
}

/*
 * Simple queue access methods.
 */
#define SIMPLEQ_FIRST(head) ((head)->sqh_first)
#define SIMPLEQ_END(head) NULL
#define SIMPLEQ_EMPTY(head) ((head)->sqh_first == SIMPLEQ_END(head))
#define SIMPLEQ_NEXT(elm, field) ((elm)->field.sqe_next)

#define SIMPLEQ_FOREACH(var, head, field)  \
for ((var) = ((head)->sqh_first);  \
     (var) != SIMPLEQ_END(head);  \
     (var) = ((var)->field.sqe_next))

#define SIMPLEQ_FOREACH_SAFE(var, head, field, next)  \
for ((var) = ((head)->sqh_first);  \
     (var) != SIMPLEQ_END(head) &&  \
     ((next = ((var)->field.sqe_next)), 1);  \
     (var) = (next))

/*
 * Simple queue functions.
 */
#define SIMPLEQ_INIT(head) do {  \
    (head)->sqh_first = NULL;  \
    (head)->sqh_last  \
    = &(head)->sqh_first;  \
} while (/*CONSTCOND*/0)

```

```

#define SIMPLEQ_INSERT_HEAD(head, elm, field) do { \
    if (((elm)->field.sqe_next = (head)->sqh_first) == NULL) \
        (head)->sqh_last = &(elm)->field.sqe_next; \
    (head)->sqh_first = (elm); \
} while (/*CONSTCOND*/0)

#define SIMPLEQ_INSERT_TAIL(head, elm, field) do { \
    (elm)->field.sqe_next = NULL; \
    *(head)->sqh_last = (elm); \
    (head)->sqh_last = &(elm)->field.sqe_next; \
} while (/*CONSTCOND*/0)

#define SIMPLEQ_INSERT_AFTER(head, listelm, elm, field) do { \
    if (((elm)->field.sqe_next = (listelm)->field.sqe_next) == NULL) \
        (head)->sqh_last = &(elm)->field.sqe_next; \
    (listelm)->field.sqe_next = (elm); \
} while (/*CONSTCOND*/0)

#define SIMPLEQ_REMOVE_HEAD(head, field) do { \
    if (((head)->sqh_first = (head)->sqh_first->field.sqe_next) == NULL) \
        (head)->sqh_last = &(head)->sqh_first; \
} while (/*CONSTCOND*/0)

#define SIMPLEQ_REMOVE_AFTER(head, elm, field) do { \
    if \
        (((elm)->field.sqe_next = (elm)->field.sqe_next->field.sqe_next) \
         == NULL) \
        (head)->sqh_last = &(elm)->field.sqe_next; \
} while (/*CONSTCOND*/0)

#define SIMPLEQ_REMOVE(head, elm, type, field) do { \
    if ((head)->sqh_first == (elm)) { \
        SIMPLEQ_REMOVE_HEAD((head), field); \
    } else { \
        struct type *curelm = (head)->sqh_first; \
        while (curelm->field.sqe_next != (elm)) \
            curelm = curelm->field.sqe_next; \
        if ((curelm->field.sqe_next = \
            curelm->field.sqe_next->field.sqe_next) == NULL) \
            (head)->sqh_last = &(curelm)->field.sqe_next; \
    } \
} while (/*CONSTCOND*/0)

#define SIMPLEQ_CONCAT(head1, head2) do { \
    if (!SIMPLEQ_EMPTY((head2))) { \
        *(head1)->sqh_last = (head2)->sqh_first; \
        (head1)->sqh_last = (head2)->sqh_last; \
        SIMPLEQ_INIT((head2)); \
    } \
} while (/*CONSTCOND*/0)

```

```

} \
} while (/*CONSTCOND*/0)

#define SIMPLEQ_LAST(head, type, field) \
(SIMPLEQ_EMPTY((head)) ? \
NULL : \
((struct type \
*)(void *) \
((char *)((head)->sqh_last) - offsetof(struct type, field))))

/*
 * Tail queue definitions.
 */
#define _TAILQ_HEAD(name, type, qual) \
struct name { \
    qual type *tqh_first; /* first element */ \
    qual type *qual *tqh_last; /* addr of last next element */ \
}
#define TAILQ_HEAD(name, type) _TAILQ_HEAD(name, struct type,)

#define TAILQ_HEAD_INITIALIZER(head) \
{ TAILQ_END(head), &(head).tqh_first }

#define _TAILQ_ENTRY(type, qual) \
struct { \
    qual type *tqe_next; /* next element */ \
    qual type *qual *tqe_prev; /* address of previous next element */ \
}
#define TAILQ_ENTRY(type) _TAILQ_ENTRY(struct type,)

/*
 * Tail queue access methods.
 */
#define TAILQ_FIRST(head) ((head)->tqh_first)
#define TAILQ_END(head) (NULL)
#define TAILQ_NEXT(elm, field) ((elm)->field.tqe_next)
#define TAILQ_LAST(head, headname) \
(*(((struct headname *) (void *)((head)->tqh_last))->tqh_last))
#define TAILQ_PREV(elm, headname, field) \
(*(((struct headname \
*)(void *)((elm)->field.tqe_prev))->tqh_last))
#define TAILQ_EMPTY(head) (TAILQ_FIRST(head) == TAILQ_END(head))

#define TAILQ_FOREACH(var, head, field) \
for ((var) = ((head)->tqh_first); \
    (var) != TAILQ_END(head); \
    (var) = ((var)->field.tqe_next))

```

```

#define TAILQ_FOREACH_SAFE(var, head, field, next) \
for ((var) = ((head)->tqh_first); \
    (var) != TAILQ_END(head) && \
    ((next) = TAILQ_NEXT(var, field), 1); (var) = (next))

#define TAILQ_FOREACH_REVERSE(var, head, headname, field) \
for ((var) = TAILQ_LAST((head), headname); \
    (var) != TAILQ_END(head); \
    (var) = TAILQ_PREV((var), headname, field))

#define TAILQ_FOREACH_REVERSE_SAFE(var, head, headname, field, prev) \
for ((var) = TAILQ_LAST((head), headname); \
    (var) != TAILQ_END(head) && \
    ((prev) = TAILQ_PREV((var), headname, field), 1); (var) = (prev))

/*
 * Tail queue functions.
 */
#if defined(QUEUEDEBUG)
#define QUEUEDEBUG_TAILQ_INSERT_HEAD(head, \
    elm, field) \
if ((head)->tqh_first && \
    (head)->tqh_first->field.tqe_prev != &(head)->tqh_first) \
    QUEUEDEBUG_ABORT("TAILQ_INSERT_HEAD %p %s:%d", (head), \
        __FILE__, __LINE__);
#define QUEUEDEBUG_TAILQ_INSERT_TAIL(head, elm, field) \
if (*(head)->tqh_last != NULL) \
    QUEUEDEBUG_ABORT("TAILQ_INSERT_TAIL %p %s:%d", (head), \
        __FILE__, __LINE__);
#define QUEUEDEBUG_TAILQ_OP(elm, field) \
if ((elm)->field.tqe_next && \
    (elm)->field.tqe_next->field.tqe_prev != \
    &(elm)->field.tqe_next) \
    QUEUEDEBUG_ABORT("TAILQ_* forw %p %s:%d", (elm), \
        __FILE__, __LINE__); \
if (*(elm)->field.tqe_prev != (elm)) \
    QUEUEDEBUG_ABORT("TAILQ_* back %p %s:%d", (elm), \
        __FILE__, __LINE__);
#define QUEUEDEBUG_TAILQ_PREREMOVE(head, elm, field) \
if ((elm)->field.tqe_next == NULL && \
    (head)->tqh_last != &(elm)->field.tqe_next) \
    QUEUEDEBUG_ABORT("TAILQ_PREREMOVE head %p elm %p %s:%d", \
        (head), (elm), __FILE__, \
        __LINE__);
#define QUEUEDEBUG_TAILQ_POSTREMOVE(elm, field) \
(elm)->field.tqe_next = (void *)1L; \
(elm)->field.tqe_prev = (void *)1L;

```

```

#else
#define QUEUEDEBUG_TAILQ_INSERT_HEAD(head, elm, field)
#define QUEUEDEBUG_TAILQ_INSERT_TAIL(head, elm, field)
#define QUEUEDEBUG_TAILQ_OP(elm, field)
#define QUEUEDEBUG_TAILQ_PREREMOVE(head, elm, field)
#define QUEUEDEBUG_TAILQ_POSTREMOVE(elm, field)
#endif

#define TAILQ_INIT(head) do { \
    (head)->tqh_first = TAILQ_END(head); \
    (head)->tqh_last = &(head)->tqh_first; \
} while (/*CONSTCOND*/0)

#define TAILQ_INSERT_HEAD(head, elm, field) do { \
    QUEUEDEBUG_TAILQ_INSERT_HEAD((head), (elm), field) \
    if (((elm)->field.tqe_next = (head)->tqh_first) != TAILQ_END(head)) \
    (head)->tqh_first->field.tqe_prev = \
        &(elm)->field.tqe_next; \
    else \
    (head)->tqh_last = &(elm)->field.tqe_next; \
    (head)->tqh_first = (elm); \
    (elm)->field.tqe_prev = &(head)->tqh_first; \
} while (/*CONSTCOND*/0)

#define TAILQ_INSERT_TAIL(head, \
    elm, field) do { \
    QUEUEDEBUG_TAILQ_INSERT_TAIL((head), (elm), field) \
    (elm)->field.tqe_next = TAILQ_END(head); \
    (elm)->field.tqe_prev = (head)->tqh_last; \
    *(head)->tqh_last = (elm); \
    (head)->tqh_last = &(elm)->field.tqe_next; \
} while (/*CONSTCOND*/0)

#define TAILQ_INSERT_AFTER(head, listelm, elm, field) do { \
    QUEUEDEBUG_TAILQ_OP((listelm), field) \
    if (((elm)->field.tqe_next = (listelm)->field.tqe_next) != \
        TAILQ_END(head)) \
    (elm)->field.tqe_next->field.tqe_prev = \
        &(elm)->field.tqe_next; \
    else \
    (head)->tqh_last = &(elm)->field.tqe_next; \
    (listelm)->field.tqe_next = (elm); \
    (elm)->field.tqe_prev = &(listelm)->field.tqe_next; \
} while (/*CONSTCOND*/0)

#define TAILQ_INSERT_BEFORE(listelm, elm, field) do { \
    QUEUEDEBUG_TAILQ_OP((listelm), field) \
    (elm)->field.tqe_prev = (listelm)->field.tqe_prev; \

```

```

(elm)->field.tqe_next = (listelm); \
*(listelm)->field.tqe_prev = (elm); \
(listelm)->field.tqe_prev
= &(elm)->field.tqe_next; \
} while (/*CONSTCOND*/0)

#define TAILQ_REMOVE(head, elm, field) do { \
    QUEUEDEBUG_TAILQ_PREREMOVE((head), (elm), field) \
    QUEUEDEBUG_TAILQ_OP((elm), field) \
    if (((elm)->field.tqe_next) != TAILQ_END(head)) \
        (elm)->field.tqe_next->field.tqe_prev = \
            (elm)->field.tqe_prev; \
    else \
        (head)->tqh_last = (elm)->field.tqe_prev; \
    *(elm)->field.tqe_prev = (elm)->field.tqe_next; \
    QUEUEDEBUG_TAILQ_POSTREMOVE((elm), field); \
} while (/*CONSTCOND*/0)

#define TAILQ_REPLACE(head, elm, elm2, field) do { \
    if (((elm2)->field.tqe_next = (elm)->field.tqe_next) != \
        TAILQ_END(head)) \
        (elm2)->field.tqe_next->field.tqe_prev = \
            &(elm2)->field.tqe_next; \
    else \
        (head)->tqh_last = &(elm2)->field.tqe_next; \
    (elm2)->field.tqe_prev = (elm)->field.tqe_prev; \
    *(elm2)->field.tqe_prev = (elm2); \
    QUEUEDEBUG_TAILQ_POSTREMOVE((elm), \
        field); \
} while (/*CONSTCOND*/0)

#define TAILQ_CONCAT(head1, head2, field) do { \
    if (!TAILQ_EMPTY(head2)) { \
        *(head1)->tqh_last = (head2)->tqh_first; \
        (head2)->tqh_first->field.tqe_prev = (head1)->tqh_last; \
        (head1)->tqh_last = (head2)->tqh_last; \
        TAILQ_INIT((head2)); \
    } \
} while (/*CONSTCOND*/0)

/*
 * Singly-linked Tail queue declarations.
 */

#define STAILQ_HEAD(name, type) \
struct name { \
    struct type *stqh_first; /* first element */ \
    struct type **stqh_last; /* addr of last next element */ \
}

```



```

#define STAILQ_HEAD_INITIALIZER(head) \
{ NULL, &(head).stqh_first }

#define STAILQ_ENTRY(type) \
struct { \
    struct type *stqe_next; /* next element */ \
}

/*
 * Singly-linked Tail queue access methods.
 */
#define STAILQ_FIRST(head) ((head)->stqh_first)
#define STAILQ_END(head) NULL
#define STAILQ_NEXT(elm, field) ((elm)->field.stqe_next)
#define STAILQ_EMPTY(head) (STAILQ_FIRST(head) \
    == STAILQ_END(head))

/*
 * Singly-linked Tail queue functions.
 */
#define STAILQ_INIT(head) do { \
    (head)->stqh_first = NULL; \
    (head)->stqh_last = &(head)->stqh_first; \
} while (/*CONSTCOND*/0)

#define STAILQ_INSERT_HEAD(head, elm, field) do { \
    if (((elm)->field.stqe_next = (head)->stqh_first) == NULL) \
        (head)->stqh_last = &(elm)->field.stqe_next; \
    (head)->stqh_first = (elm); \
} while (/*CONSTCOND*/0)

#define STAILQ_INSERT_TAIL(head, elm, field) do { \
    (elm)->field.stqe_next = NULL; \
    *(head)->stqh_last = (elm); \
    (head)->stqh_last = &(elm)->field.stqe_next; \
} while (/*CONSTCOND*/0)

#define STAILQ_INSERT_AFTER(head, listelm, elm, field) do { \
    if (((elm)->field.stqe_next = (listelm)->field.stqe_next) == NULL) \
        (head)->stqh_last = &(elm)->field.stqe_next; \
    (listelm)->field.stqe_next = (elm); \
} while (/*CONSTCOND*/0)

#define STAILQ_REMOVE_HEAD(head, field) do { \
    if (((head)->stqh_first = (head)->stqh_first->field.stqe_next) \
        == NULL) \
        (head)->stqh_last = &(head)->stqh_first; \
}

```

```

} while (/*CONSTCOND*/0)

#define STAILQ_REMOVE(head, elm, type, field) do { \
    if ((head)->stqh_first == (elm)) { \
        STAILQ_REMOVE_HEAD((head), field); \
    } else { \
        struct type *curelm = (head)->stqh_first; \
        while (curelm->field.stqe_next != (elm)) \
            curelm = curelm->field.stqe_next; \
        if ((curelm->field.stqe_next = \
            curelm->field.stqe_next->field.stqe_next) == NULL) \
            (head)->stqh_last = &(curelm->field.stqe_next); \
    } \
} while (/*CONSTCOND*/0)

#define STAILQ_FOREACH(var, head, field) \
    for ((var) = ((head)->stqh_first); \
        (var); \
        (var) = ((var)->field.stqe_next))

#define STAILQ_FOREACH_SAFE(var, head, field, tvar) \
    for ((var) = STAILQ_FIRST((head)); \
        (var) && ((tvar) = STAILQ_NEXT((var), field), 1); \
        (var) = (tvar))

#define STAILQ_CONCAT(head1, head2) do { \
    if (!STAILQ_EMPTY((head2))) { \
        *(head1)->stqh_last \
        = (head2)->stqh_first; \
        (head1)->stqh_last = (head2)->stqh_last; \
        STAILQ_INIT((head2)); \
    } \
} while (/*CONSTCOND*/0)

#define STAILQ_LAST(head, type, field) \
    (STAILQ_EMPTY((head)) ? \
    NULL : \
    ((struct type *) (void *) \
    ((char *)((head)->stqh_last) - offsetof(struct type, field))))

#ifdef _KERNEL
/*
 * Circular queue definitions. Do not use. We still keep the macros
 * for compatibility but because of pointer aliasing issues their use
 * is discouraged!
 */

```

```

/*
 * __launder_type(): We use this ugly hack to work around the the compiler
 * noticing that two types may not alias each other and elide tests in code.
 * We hit this in the CIRCLEQ macros when comparing 'struct name *' and
 * 'struct type *' (see CIRCLEQ_HEAD()). Modern compilers (such as GCC
 * 4.8) declare these comparisons as always false, causing the code to
 * not run as designed.
 *
 * This hack is only to be used for comparisons and thus can be fully const.
 * Do not use for assignment.
 *
 * If we ever choose to change the ABI of the CIRCLEQ macros, we could fix
 * this by changing the head/tail sentinel values, but see the note above
 * this one.
 */
static __inline const void * __launder_type(const void *);
static __inline const void *
__launder_type(const void *__x)
{
    __asm __volatile("" : "+r" (__x));
    return __x;
}

#if defined(QUEUEDEBUG)
#define QUEUEDEBUG_CIRCLEQ_HEAD(head, field) \
    if ((head)->cqh_first != CIRCLEQ_ENDC(head) && \
        (head)->cqh_first->field.cqe_prev != CIRCLEQ_ENDC(head)) \
        QUEUEDEBUG_ABORT("CIRCLEQ head forw %p %s:%d", (head), \
            __FILE__, __LINE__); \
    if ((head)->cqh_last != CIRCLEQ_ENDC(head) && \
        (head)->cqh_last->field.cqe_next != CIRCLEQ_ENDC(head)) \
        QUEUEDEBUG_ABORT("CIRCLEQ head back %p %s:%d", (head), \
            __FILE__, __LINE__);
#define QUEUEDEBUG_CIRCLEQ_ELM(head, elm, field) \
    if ((elm)->field.cqe_next == CIRCLEQ_ENDC(head)) { \
        if ((head)->cqh_last != (elm)) \
            QUEUEDEBUG_ABORT("CIRCLEQ \
elm last %p %s:%d", \
                (elm), __FILE__, __LINE__); \
    } else { \
        if ((elm)->field.cqe_next->field.cqe_prev != (elm)) \
            QUEUEDEBUG_ABORT("CIRCLEQ elm forw %p %s:%d", \
                (elm), __FILE__, __LINE__); \
    } \
    if ((elm)->field.cqe_prev == CIRCLEQ_ENDC(head)) { \
        if ((head)->cqh_first != (elm)) \
            QUEUEDEBUG_ABORT("CIRCLEQ elm first %p %s:%d", \
                (elm), __FILE__, __LINE__); \
    }

```

```

} else { \
if ((elm)->field.cqe_prev->field.cqe_next != (elm)) \
    QUEUEDEBUG_ABORT("CIRCLEQ elm prev %p %s:%d", \
        (elm), __FILE__, __LINE__); \
}

#define QUEUEDEBUG_CIRCLEQ_POSTREMOVE(elm, field) \
    (elm)->field.cqe_next = (void *)1L; \
    (elm)->field.cqe_prev = (void *)1L;
#else
#define QUEUEDEBUG_CIRCLEQ_HEAD(head, field)
#define QUEUEDEBUG_CIRCLEQ_ELM(head, elm, field)
#define QUEUEDEBUG_CIRCLEQ_POSTREMOVE(elm, field)
#endif

#define CIRCLEQ_HEAD(name, type) \
struct name { \
    struct type *cqh_first; /* \
    first element */ \
    struct type *cqh_last; /* last element */ \
}

#define CIRCLEQ_HEAD_INITIALIZER(head) \
    { CIRCLEQ_END(&head), CIRCLEQ_END(&head) }

#define CIRCLEQ_ENTRY(type) \
struct { \
    struct type *cqe_next; /* next element */ \
    struct type *cqe_prev; /* previous element */ \
}

/*
 * Circular queue functions.
 */

#define CIRCLEQ_INIT(head) do { \
    (head)->cqh_first = CIRCLEQ_END(head); \
    (head)->cqh_last = CIRCLEQ_END(head); \
} while (/*CONSTCOND*/0)

#define CIRCLEQ_INSERT_AFTER(head, listelm, elm, field) do { \
    QUEUEDEBUG_CIRCLEQ_HEAD((head), field) \
    QUEUEDEBUG_CIRCLEQ_ELM((head), (listelm), field) \
    (elm)->field.cqe_next = (listelm)->field.cqe_next; \
    (elm)->field.cqe_prev = (listelm); \
    if ((listelm)->field.cqe_next == CIRCLEQ_ENDC(head)) \
        (head)->cqh_last = (elm); \
    else \
        (listelm)->field.cqe_next->field.cqe_prev = (elm); \
    (listelm)->field.cqe_next = (elm); \
} while (0)

```

```

} while (/*CONSTCOND*/0)

#define CIRCLEQ_INSERT_BEFORE(head,
listelm, elm, field) do { \
    QUEUEDEBDEBUG_CIRCLEQ_HEAD((head), field) \
    QUEUEDEBDEBUG_CIRCLEQ_ELM((head), (listelm), field) \
    (elm)->field.cqe_next = (listelm); \
    (elm)->field.cqe_prev = (listelm)->field.cqe_prev; \
    if ((listelm)->field.cqe_prev == CIRCLEQ_ENDC(head)) \
        (head)->cqh_first = (elm); \
    else \
        (listelm)->field.cqe_prev->field.cqe_next = (elm); \
    (listelm)->field.cqe_prev = (elm); \
} while (/*CONSTCOND*/0)

#define CIRCLEQ_INSERT_HEAD(head, elm, field) do { \
    QUEUEDEBDEBUG_CIRCLEQ_HEAD((head), field) \
    (elm)->field.cqe_next = (head)->cqh_first; \
    (elm)->field.cqe_prev = CIRCLEQ_END(head); \
    if ((head)->cqh_last == CIRCLEQ_ENDC(head)) \
        (head)->cqh_last = (elm); \
    else \
        (head)->cqh_first->field.cqe_prev = (elm); \
    (head)->cqh_first = (elm); \
} while (/*CONSTCOND*/0)

#define CIRCLEQ_INSERT_TAIL(head, elm, field) do { \
    QUEUEDEBDEBUG_CIRCLEQ_HEAD((head), field) \
    (elm)->field.cqe_next \
    = CIRCLEQ_END(head); \
    (elm)->field.cqe_prev = (head)->cqh_last; \
    if ((head)->cqh_first == CIRCLEQ_ENDC(head)) \
        (head)->cqh_first = (elm); \
    else \
        (head)->cqh_last->field.cqe_next = (elm); \
    (head)->cqh_last = (elm); \
} while (/*CONSTCOND*/0)

#define CIRCLEQ_REMOVE(head, elm, field) do { \
    QUEUEDEBDEBUG_CIRCLEQ_HEAD((head), field) \
    QUEUEDEBDEBUG_CIRCLEQ_ELM((head), (elm), field) \
    if ((elm)->field.cqe_next == CIRCLEQ_ENDC(head)) \
        (head)->cqh_last = (elm)->field.cqe_prev; \
    else \
        (elm)->field.cqe_next->field.cqe_prev = \
            (elm)->field.cqe_prev; \
    if ((elm)->field.cqe_prev == CIRCLEQ_ENDC(head)) \
        (head)->cqh_first = (elm)->field.cqe_next; \

```

```

else \
    (elm)->field.cqe_prev->field.cqe_next = \
        (elm)->field.cqe_next; \
    QUEUEDEBUG_CIRCLEQ_POSTREMOVE((elm), field) \
} while (/*CONSTCOND*/0)

#define CIRCLEQ_FOREACH(var, head, field) \
    for ((var) = ((head)->cqh_first); \
        (var) != CIRCLEQ_ENDC(head); \
        (var) \
        = ((var)->field.cqe_next))

#define CIRCLEQ_FOREACH_REVERSE(var, head, field) \
    for ((var) = ((head)->cqh_last); \
        (var) != CIRCLEQ_ENDC(head); \
        (var) = ((var)->field.cqe_prev))

/*
 * Circular queue access methods.
 */
#define CIRCLEQ_FIRST(head) ((head)->cqh_first)
#define CIRCLEQ_LAST(head) ((head)->cqh_last)
/* For comparisons */
#define CIRCLEQ_ENDC(head) (__launter_type(head))
/* For assignments */
#define CIRCLEQ_END(head) ((void *)(head))
#define CIRCLEQ_NEXT(elm, field) ((elm)->field.cqe_next)
#define CIRCLEQ_PREV(elm, field) ((elm)->field.cqe_prev)
#define CIRCLEQ_EMPTY(head) \
    (CIRCLEQ_FIRST(head) == CIRCLEQ_ENDC(head))

#define CIRCLEQ_LOOP_NEXT(head, elm, field) \
    (((elm)->field.cqe_next == CIRCLEQ_ENDC(head)) \
     ? ((head)->cqh_first) \
     : (elm->field.cqe_next))
#define CIRCLEQ_LOOP_PREV(head, elm, field) \
    (((elm)->field.cqe_prev == CIRCLEQ_ENDC(head)) \
     ? ((head)->cqh_last) \
     : \
     (elm->field.cqe_prev))
#endif /* !_KERNEL */

#endif /* !_SYS_QUEUE_H_ */
# Contributor: Fabian Affolter <fabian@affolter-engineering.ch>
# Maintainer: Fabian Affolter <fabian@affolter-engineering.ch>
pkgname=py3-flake8-copyright
_pkgname=flake8-copyright
pkgver=0.2.4

```

```

pkgrel=3
pkgdesc="Extension for flake8 which checks for copyrights"
options="!check" # No testsuite
url="https://github.com/savoirfairelinux/flake8-copyright"
arch="noarch"
license="MIT"
depends="py3-flake8 py3-setuptools"
makedepends="py3-gpep517 py3-wheel"
subpackages="$pkgname-pyc"
source="https://files.pythonhosted.org/packages/source/${_pkgname:0:1}/${_pkgname}/${_pkgname}-${pkgver}.tar.gz"
builddir="$srcdir"/$_pkgname-$pkgver

replaces="py-flake8-copyright"          # Backwards compatibility
provides="py-flake8-copyright=$pkgver-r$pkgrel" # Backwards compatibility

build() {
    gpep517 build-wheel \
        --wheel-dir .dist \
        --output-fd 3 3>&1 >&2
}

package() {
    gpep517 install-wheel --destdir "$pkgdir" \
        .dist/*.whl
}

sha512sums="
a6ab47e1bb715618f075c51f398e18180404871b3b0faf1c2d30701d5203db6bc23771bf22ffb5bafcd8ee856b9b64237
b316bd503ae7dceed6ca284ccd5a74d
    flake8-copyright-0.2.4.tar.gz
"

#ifndef _SYS_CDEFS_H_
#define _SYS_CDEFS_H_

#warning usage of non-standard #include <sys/cdefs.h> is deprecated

#undef __P
#undef __PMT

#define __P(args) args
#define __PMT(args) args

#define __CONCAT(x,y) x ## y
#define __STRING(x) #x

#ifdef __cplusplus
# define __BEGIN_DECLS extern "C" {
# define __END_DECLS }

```

```

#else
# define __BEGIN_DECLS
# define __END_DECLS
#endif

#if defined(__GNUC__) && !defined(__cplusplus)
# define __THROW __attribute__((__nothrow__))
# define __NTH(fct) __attribute__((__nothrow__)) fct
#else
# define __THROW
# define __NTH(fct) fct
#endif

#endif /* _SYS_CDEFS_H_ */
# Maintainer: fossdd <fossdd@pwned.life>
pkgname=cargo-license
pkgver=0.6.1
pkgrel=1
pkgdesc="Cargo subcommand to see license of dependencies"
url="https://github.com/onur/cargo-license"
arch="all"
license="MIT"
makedepends="cargo cargo-auditable"
source="$pkgname-$pkgver.tar.gz::https://crates.io/api/v1/crates/cargo-license/$pkgver/download"

prepare() {
    default_prepare

    cargo fetch --target="$CTARGET" --locked
}

build() {
    cargo auditable build --release --frozen
}

check() {
    cargo test --frozen
}

package() {
    install -Dm755 target/release/cargo-license -t "$pkgdir"/usr/bin
}

sha512sums="
36215145e79965be090ae2f5ce6f5eb208465eb67a94c26bed1fe70a131c46c6dc35695e30852759b7366883fbc3caf00
272d796ac634f0a5e1d49232b6b29d5 cargo-license-0.6.1.tar.gz
"

```



```

/* $NetBSD: tree.h,v 1.20 2013/09/14 13:20:45 joerg Exp $ */
/* $OpenBSD: tree.h,v 1.13 2011/07/09 00:19:45 pirofti Exp $ */
/* Modified by Void Linux. */
/*
 * Copyright 2002 Niels Provos <provos@citi.umich.edu>
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 *
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 * modification, are permitted provided that the following conditions
 * are met:
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 *    notice, this list of conditions and the following disclaimer.
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 *
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 * IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES
 * OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED.
 * IN NO EVENT SHALL THE
 * AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT,
 * INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT
 * NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,
 * DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY
 * THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
 * (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF
 * THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
 */

#ifndef _SYS_TREE_H_
#define _SYS_TREE_H_

#ifdef __GNUC__
#define __GNUC_PREREQ__(x, y) \
    ((__GNUC__ == (x) && __GNUC_MINOR__ >= (y)) || \
     (__GNUC__ > (x)))
#else
#define __GNUC_PREREQ__(x, y) 0
#endif

#if __GNUC_PREREQ__(2, 7) || defined(__lint__)
#define _sys_tree_h_unused __attribute__((__unused__))
#else
#define _sys_tree_h_unused /* delete */
#endif

/*
 * This file defines data structures for different types of trees:

```

- * splay trees and red-black trees.
- *
- * A splay tree is a self-organizing data structure. Every operation
- * on the tree causes a splay to happen. The splay moves the requested
- * node to the root of the tree and partly rebalances it.
- *
- * This has the benefit that request locality causes faster lookups as
- * the requested nodes move to the top of the tree. On the other hand,
- * every lookup causes memory writes.
- *
- * The Balance Theorem bounds the total access time for m operations
- * and n inserts on an initially empty tree as $O((m + n)\lg n)$. The
- * amortized cost for a sequence of m accesses to a splay tree is $O(\lg n)$;
- *
- * A red-black tree is a binary search tree with the node color as an
- * extra attribute. It fulfills a set of conditions:
- * - every search path from the root to a leaf consists of the
- * same number of black nodes,
- * - each red node (except for the root) has a black parent,
- * - each leaf node is black.
- *
- * Every operation on a red-black tree is bounded as $O(\lg n)$.
- * The maximum height of a red-black tree is $2\lg(n+1)$.
- */

```
#define SPLAY_HEAD(name, type) \
struct name { \
    struct type *sph_root; /* root of the tree */ \
}
```

```
#define SPLAY_INITIALIZER(root) \
{ NULL }
```

```
#define SPLAY_INIT(root) do { \
    (root)->sph_root = NULL; \
} while (/*CONSTCOND*/ 0)
```

```
#define SPLAY_ENTRY(type) \
struct { \
    struct type *spe_left; /* left element */ \
    struct type *spe_right; /* right element */ \
}
```

```
#define SPLAY_LEFT(elm, field) (elm)->field.spe_left
#define SPLAY_RIGHT(elm, field) (elm)->field.spe_right
#define SPLAY_ROOT(head) (head)->sph_root
#define SPLAY_EMPTY(head) (SPLAY_ROOT(head) == NULL)
```

```

/* SPLAY_ROTATE_{LEFT,RIGHT} expect that tmp hold SPLAY_{RIGHT,LEFT} */
#define SPLAY_ROTATE_RIGHT(head, tmp, field) do { \
    SPLAY_LEFT((head)->sph_root, field) = SPLAY_RIGHT(tmp, field); \
    SPLAY_RIGHT(tmp, field) = (head)->sph_root; \
    (head)->sph_root = tmp; \
} while (/*CONSTCOND*/ 0)

#define SPLAY_ROTATE_LEFT(head, tmp, field) do { \
    SPLAY_RIGHT((head)->sph_root, \
    field) = SPLAY_LEFT(tmp, field); \
    SPLAY_LEFT(tmp, field) = (head)->sph_root; \
    (head)->sph_root = tmp; \
} while (/*CONSTCOND*/ 0)

#define SPLAY_LINKLEFT(head, tmp, field) do { \
    SPLAY_LEFT(tmp, field) = (head)->sph_root; \
    tmp = (head)->sph_root; \
    (head)->sph_root = SPLAY_LEFT((head)->sph_root, field); \
} while (/*CONSTCOND*/ 0)

#define SPLAY_LINKRIGHT(head, tmp, field) do { \
    SPLAY_RIGHT(tmp, field) = (head)->sph_root; \
    tmp = (head)->sph_root; \
    (head)->sph_root = SPLAY_RIGHT((head)->sph_root, field); \
} while (/*CONSTCOND*/ 0)

#define SPLAY_ASSEMBLE(head, node, left, right, field) do { \
    SPLAY_RIGHT(left, field) = SPLAY_LEFT((head)->sph_root, field); \
    SPLAY_LEFT(right, field) = SPLAY_RIGHT((head)->sph_root, field); \
    SPLAY_LEFT((head)->sph_root, field) = SPLAY_RIGHT(node, field); \
    SPLAY_RIGHT((head)->sph_root, field) = SPLAY_LEFT(node, field); \
} while (/*CONSTCOND*/ 0)

/* Generates prototypes and inline functions */

#define
    SPLAY_PROTOTYPE(name, type, field, cmp) \
void name##_SPLAY(struct name *, struct type *); \
void name##_SPLAY_MINMAX(struct name *, int); \
struct type *name##_SPLAY_INSERT(struct name *, struct type *); \
struct type *name##_SPLAY_REMOVE(struct name *, struct type *); \
\
/* Finds the node with the same key as elm */ \
static __inline struct type * \
name##_SPLAY_FIND(struct name *head, struct type *elm) \
{ \
    if (SPLAY_EMPTY(head)) \

```

```

return(NULL); \
name##_SPLAY(head, elm); \
if ((cmp)(elm, (head)->sph_root) == 0) \
return (head->sph_root); \
return (NULL); \
} \
\
static __inline __sys_tree_h_unused struct type * \
name##_SPLAY_NEXT(struct name *head, struct type *elm) \
{ \
name##_SPLAY(head, elm); \
if (SPLAY_RIGHT(elm, field) != NULL) { \
elm = SPLAY_RIGHT(elm, field); \
while (SPLAY_LEFT(elm, field) != NULL) { \
elm = SPLAY_LEFT(elm, field); \
} \
} \
else \
elm = NULL; \
return (elm); \
} \
\
static __sys_tree_h_unused __inline struct type * \
name##_SPLAY_MIN_MAX(struct name *head, int val) \
{ \
name##_SPLAY_MINMAX(head, val); \
return (SPLAY_ROOT(head)); \
}

/* Main splay operation.
* Moves node close to the key of elm to top
*/
#define SPLAY_GENERATE(name, type, field, cmp) \
struct type * \
name##_SPLAY_INSERT(struct name *head, struct type *elm) \
{ \
if (SPLAY_EMPTY(head)) { \
SPLAY_LEFT(elm, field) = SPLAY_RIGHT(elm, field) = NULL; \
} else { \
int __comp; \
name##_SPLAY(head, elm); \
__comp = (cmp)(elm, (head)->sph_root); \
if(__comp < 0) { \
SPLAY_LEFT(elm, field) = SPLAY_LEFT((head)->sph_root, field);\
SPLAY_RIGHT(elm, field) = (head)->sph_root; \
SPLAY_LEFT((head)->sph_root, field) = NULL; \
} else if (__comp > 0) { \
SPLAY_RIGHT(elm,

```

```

field) = SPLAY_RIGHT((head)->sph_root, field);\
    SPLAY_LEFT(elm, field) = (head)->sph_root; \
    SPLAY_RIGHT((head)->sph_root, field) = NULL; \
} else \
    return ((head)->sph_root); \
} \
(head)->sph_root = (elm); \
return (NULL); \
} \
\
struct type * \
name##_SPLAY_REMOVE(struct name *head, struct type *elm) \
{ \
    struct type *__tmp; \
    if (SPLAY_EMPTY(head)) \
        return (NULL); \
    name##_SPLAY(head, elm); \
    if ((cmp)(elm, (head)->sph_root) == 0) { \
        if (SPLAY_LEFT((head)->sph_root, field) == NULL) { \
            (head)->sph_root = SPLAY_RIGHT((head)->sph_root, field);\
        } else { \
            __tmp = SPLAY_RIGHT((head)->sph_root, field); \
            (head)->sph_root = SPLAY_LEFT((head)->sph_root, field);\
            name##_SPLAY(head, elm); \
            SPLAY_RIGHT((head)->sph_root, field) = __tmp; \
        } \
        return (elm); \
    } \
    return (NULL); \
} \
\
void \
name##_SPLAY(struct \
    name *head, struct type *elm) \
{ \
    struct type __node, *__left, *__right, *__tmp; \
    int __comp; \
    \
    SPLAY_LEFT(&__node, field) = SPLAY_RIGHT(&__node, field) = NULL;\
    __left = __right = &__node; \
    \
    while ((__comp = (cmp)(elm, (head)->sph_root)) != 0) { \
        if (__comp < 0) { \
            __tmp = SPLAY_LEFT((head)->sph_root, field); \
            if (__tmp == NULL) \
                break; \
            if ((cmp)(elm, __tmp) < 0){ \
                SPLAY_ROTATE_RIGHT(head, __tmp, field); \
            }

```

```

    if (SPLAY_LEFT((head)->sph_root, field) == NULL)\
        break; \
} \
SPLAY_LINKLEFT(head, __right, field); \
} else if (__comp > 0) { \
    __tmp = SPLAY_RIGHT((head)->sph_root, field);\
    if (__tmp == NULL) \
        break; \
    if ((cmp)(elm, __tmp) > 0){ \
        SPLAY_ROTATE_LEFT(head, __tmp, field);\
        if (SPLAY_RIGHT((head)->sph_root, field) == NULL)\
            break; \
    } \
    SPLAY_LINKRIGHT(head, __left, field); \
} \
} \
SPLAY_ASSEMBLE(head,
&__node, __left, __right, field); \
} \
\
/* Splay with either the minimum or the maximum element \
* Used to find minimum or maximum element in tree. \
*/ \
void name##_SPLAY_MINMAX(struct name *head, int __comp) \
{ \
    struct type __node, *__left, *__right, *__tmp; \
    \
    SPLAY_LEFT(&__node, field) = SPLAY_RIGHT(&__node, field) = NULL;\
    __left = __right = &__node; \
    \
    while (1) { \
        if (__comp < 0) { \
            __tmp = SPLAY_LEFT((head)->sph_root, field);\
            if (__tmp == NULL) \
                break; \
            if (__comp < 0){ \
                SPLAY_ROTATE_RIGHT(head, __tmp, field);\
                if (SPLAY_LEFT((head)->sph_root, field) == NULL)\
                    break; \
            } \
            SPLAY_LINKLEFT(head, __right, field); \
        } else if (__comp > 0) { \
            __tmp = SPLAY_RIGHT((head)->sph_root, field);\
            if (__tmp == NULL) \
                break; \
            if (__comp > 0) { \
                SPLAY_ROTATE_LEFT(head, __tmp, field);\
                if (SPLAY_RIGHT((head)->sph_root,

```

```

field) == NULL)\
    break; \
} \
    SPLAY_LINKRIGHT(head, __left, field); \
} \
} \
    SPLAY_ASSEMBLE(head, &__node, __left, __right, field); \
}

#define SPLAY_NEGINF -1
#define SPLAY_INF 1

#define SPLAY_INSERT(name, x, y) name##_SPLAY_INSERT(x, y)
#define SPLAY_REMOVE(name, x, y) name##_SPLAY_REMOVE(x, y)
#define SPLAY_FIND(name, x, y) name##_SPLAY_FIND(x, y)
#define SPLAY_NEXT(name, x, y) name##_SPLAY_NEXT(x, y)
#define SPLAY_MIN(name, x) (SPLAY_EMPTY(x) ? NULL \
    : name##_SPLAY_MIN_MAX(x, SPLAY_NEGINF))
#define SPLAY_MAX(name, x) (SPLAY_EMPTY(x) ? NULL \
    : name##_SPLAY_MIN_MAX(x, SPLAY_INF))

#define SPLAY_FOREACH(x, name, head) \
    for ((x) = SPLAY_MIN(name, head); \
        (x) != NULL; \
        (x) = SPLAY_NEXT(name, head, x))

/* Macros that define a red-black tree */
#define RB_HEAD(name, type) \
struct name { \
    struct type *rbh_root; /* root of the tree */ \
}

#define RB_INITIALIZER(root) \
{ \
    NULL }

#define RB_INIT(root) do { \
    (root)->rbh_root = NULL; \
} while (/*CONSTCOND*/ 0)

#define RB_BLACK 0
#define RB_RED 1
#define RB_ENTRY(type) \
struct { \
    struct type *rbe_left; /* left element */ \
    struct type *rbe_right; /* right element */ \
    struct type *rbe_parent; /* parent element */ \
    int rbe_color; /* node color */ \
}

```

```

}

#define RB_LEFT(elm, field) (elm)->field.rbe_left
#define RB_RIGHT(elm, field) (elm)->field.rbe_right
#define RB_PARENT(elm, field) (elm)->field.rbe_parent
#define RB_COLOR(elm, field) (elm)->field.rbe_color
#define RB_ROOT(head) (head)->rbh_root
#define RB_EMPTY(head) (RB_ROOT(head) == NULL)

#define RB_SET(elm, parent, field) do { \
    RB_PARENT(elm, field) = parent; \
    RB_LEFT(elm, field) = RB_RIGHT(elm, field) = NULL; \
    RB_COLOR(elm, field) = RB_RED; \
} while (/*CONSTCOND*/ 0)

#define RB_SET_BLACKRED(black, red, field) do { \
    RB_COLOR(black, field) = RB_BLACK; \
    RB_COLOR(red, field) \
    = RB_RED; \
} while (/*CONSTCOND*/ 0)

#ifndef RB_AUGMENT
#define RB_AUGMENT(x) do {} while (/*CONSTCOND*/ 0)
#endif

#define RB_ROTATE_LEFT(head, elm, tmp, field) do { \
    (tmp) = RB_RIGHT(elm, field); \
    if ((RB_RIGHT(elm, field) = RB_LEFT(tmp, field)) != NULL) { \
        RB_PARENT(RB_LEFT(tmp, field), field) = (elm); \
    } \
    RB_AUGMENT(elm); \
    if ((RB_PARENT(tmp, field) = RB_PARENT(elm, field)) != NULL) { \
        if ((elm) == RB_LEFT(RB_PARENT(elm, field), field)) \
            RB_LEFT(RB_PARENT(elm, field), field) = (tmp); \
        else \
            RB_RIGHT(RB_PARENT(elm, field), field) = (tmp); \
    } else \
        (head)->rbh_root = (tmp); \
    RB_LEFT(tmp, field) = (elm); \
    RB_PARENT(elm, field) = (tmp); \
    RB_AUGMENT(tmp); \
    if ((RB_PARENT(tmp, field))) \
        RB_AUGMENT(RB_PARENT(tmp, field)); \
} while (/*CONSTCOND*/ 0)

#define RB_ROTATE_RIGHT(head, elm, tmp, field) do { \
    (tmp) = RB_LEFT(elm, field); \
    if ((RB_LEFT(elm, field) = RB_RIGHT(tmp, field))

```



```

!= NULL) { \
    RB_PARENT(RB_RIGHT(tmp, field), field) = (elm); \
} \
RB_AUGMENT(elm); \
if ((RB_PARENT(tmp, field) = RB_PARENT(elm, field)) != NULL) { \
    if ((elm) == RB_LEFT(RB_PARENT(elm, field), field)) \
        RB_LEFT(RB_PARENT(elm, field), field) = (tmp); \
    else \
        RB_RIGHT(RB_PARENT(elm, field), field) = (tmp); \
} else \
    (head)->rbh_root = (tmp); \
RB_RIGHT(tmp, field) = (elm); \
RB_PARENT(elm, field) = (tmp); \
RB_AUGMENT(tmp); \
if ((RB_PARENT(tmp, field))) \
    RB_AUGMENT(RB_PARENT(tmp, field)); \
} while (/*CONSTCOND*/ 0)

/* Generates prototypes and inline functions */
#define RB_PROTOTYPE(name, type, field, cmp) \
    RB_PROTOTYPE_INTERNAL(name, type, field, cmp,)
#define RB_PROTOTYPE_STATIC(name, type, field, cmp) \
    RB_PROTOTYPE_INTERNAL(name, type, field, cmp, _sys_tree_h_unused static)
#define RB_PROTOTYPE_INTERNAL(name, type, field, cmp, attr) \
    attr void name##_RB_INSERT_COLOR(struct name *, struct \
        type *); \
    attr void name##_RB_REMOVE_COLOR(struct name *, struct type *, struct type *); \
    attr struct type *name##_RB_REMOVE(struct name *, struct type *); \
    attr struct type *name##_RB_INSERT(struct name *, struct type *); \
    attr struct type *name##_RB_FIND(struct name *, struct type *); \
    attr struct type *name##_RB_NFIND(struct name *, struct type *); \
    attr struct type *name##_RB_NEXT(struct type *); \
    attr struct type *name##_RB_PREV(struct type *); \
    attr struct type *name##_RB_MINMAX(struct name *, int); \
    \

/* Main rb operation.
 * Moves node close to the key of elm to top
 */
#define RB_GENERATE(name, type, field, cmp) \
    RB_GENERATE_INTERNAL(name, type, field, cmp,)
#define RB_GENERATE_STATIC(name, type, field, cmp) \
    RB_GENERATE_INTERNAL(name, type, field, cmp, _sys_tree_h_unused static)
#define RB_GENERATE_INTERNAL(name, type, field, cmp, attr) \
    attr void \
    name##_RB_INSERT_COLOR(struct name *head, struct type *elm) \
    { \
        struct type

```

```

*parent, *gparent, *tmp; \
while ((parent = RB_PARENT(elm, field)) != NULL && \
    RB_COLOR(parent, field) == RB_RED) { \
    gparent = RB_PARENT(parent, field); \
    if (parent == RB_LEFT(gparent, field)) { \
        tmp = RB_RIGHT(gparent, field); \
        if (tmp && RB_COLOR(tmp, field) == RB_RED) { \
            RB_COLOR(tmp, field) = RB_BLACK; \
            RB_SET_BLACKRED(parent, gparent, field);\
            elm = gparent; \
            continue; \
        } \
        if (RB_RIGHT(parent, field) == elm) { \
            RB_ROTATE_LEFT(head, parent, tmp, field);\
            tmp = parent; \
            parent = elm; \
            elm = tmp; \
        } \
        RB_SET_BLACKRED(parent, gparent, field);\
        RB_ROTATE_RIGHT(head, gparent, tmp, field);\
    } else { \
        tmp = RB_LEFT(gparent, field); \
        if (tmp && RB_COLOR(tmp, field) == RB_RED) { \
            RB_COLOR(tmp, field) = RB_BLACK; \
            RB_SET_BLACKRED(parent, gparent, field);\
            elm = gparent; \
            continue; \
        } \
        if (RB_LEFT(parent, field) == elm)
    { \
        RB_ROTATE_RIGHT(head, parent, tmp, field);\
        tmp = parent; \
        parent = elm; \
        elm = tmp; \
    } \
    RB_SET_BLACKRED(parent, gparent, field);\
    RB_ROTATE_LEFT(head, gparent, tmp, field);\
} \
RB_COLOR(head->rbh_root, field) = RB_BLACK; \
} \
\
attr void \
name##_RB_REMOVE_COLOR(struct name *head, struct type *parent, struct type *elm) \
{ \
    struct type *tmp; \
    while ((elm == NULL || RB_COLOR(elm, field) == RB_BLACK) && \
        elm != RB_ROOT(head)) { \

```

```

if (RB_LEFT(parent, field) == elm) { \
    tmp = RB_RIGHT(parent, field); \
    if (RB_COLOR(tmp, field) == RB_RED) { \
        RB_SET_BLACKRED(tmp, parent, field); \
        RB_ROTATE_LEFT(head, parent, tmp, field);\
        tmp = RB_RIGHT(parent, field); \
    } \
    if ((RB_LEFT(tmp, field) == NULL || \
        RB_COLOR(RB_LEFT(tmp, field), field) == RB_BLACK) &&\
        (RB_RIGHT(tmp, field) == NULL || \
        RB_COLOR(RB_RIGHT(tmp,
field), field) == RB_BLACK)) {\
        RB_COLOR(tmp, field) = RB_RED; \
        elm = parent; \
        parent = RB_PARENT(elm, field); \
    } else { \
        if (RB_RIGHT(tmp, field) == NULL || \
            RB_COLOR(RB_RIGHT(tmp, field), field) == RB_BLACK) {\
            struct type *oleft; \
            if ((oleft = RB_LEFT(tmp, field)) \
                != NULL) \
                RB_COLOR(oleft, field) = RB_BLACK;\
            RB_COLOR(tmp, field) = RB_RED; \
            RB_ROTATE_RIGHT(head, tmp, oleft, field);\
            tmp = RB_RIGHT(parent, field); \
        } \
        RB_COLOR(tmp, field) = RB_COLOR(parent, field);\
        RB_COLOR(parent, field) = RB_BLACK; \
        if (RB_RIGHT(tmp, field)) \
            RB_COLOR(RB_RIGHT(tmp, field), field) = RB_BLACK;\
        RB_ROTATE_LEFT(head, parent, tmp, field);\
        elm = RB_ROOT(head); \
        break; \
    } \
} else { \
    tmp = RB_LEFT(parent, field); \
    if (RB_COLOR(tmp, field) == RB_RED) { \
        RB_SET_BLACKRED(tmp, parent, field); \
        RB_ROTATE_RIGHT(head, parent, tmp, field);\
        tmp
= RB_LEFT(parent, field); \
    } \
    if ((RB_LEFT(tmp, field) == NULL || \
        RB_COLOR(RB_LEFT(tmp, field), field) == RB_BLACK) &&\
        (RB_RIGHT(tmp, field) == NULL || \
        RB_COLOR(RB_RIGHT(tmp, field), field) == RB_BLACK)) {\
        RB_COLOR(tmp, field) = RB_RED; \
        elm = parent; \

```

```

parent = RB_PARENT(elm, field); \
} else { \
if (RB_LEFT(tmp, field) == NULL || \
    RB_COLOR(RB_LEFT(tmp, field), field) == RB_BLACK) {\
    struct type *oright; \
    if ((oright = RB_RIGHT(tmp, field)) \
        != NULL) \
        RB_COLOR(oright, field) = RB_BLACK;\
    RB_COLOR(tmp, field) = RB_RED; \
    RB_ROTATE_LEFT(head, tmp, oright, field);\
    tmp = RB_LEFT(parent, field); \
} \
RB_COLOR(tmp, field) = RB_COLOR(parent, field);\
RB_COLOR(parent, field) = RB_BLACK; \
if (RB_LEFT(tmp, field)) \
    RB_COLOR(RB_LEFT(tmp, field), field) = RB_BLACK;\
RB_ROTATE_RIGHT(head, parent, tmp, field);\
elm = RB_ROOT(head); \
break; \
} \
} \
} \
if
(elm) \
    RB_COLOR(elm, field) = RB_BLACK; \
} \
\
attr struct type * \
name##_RB_REMOVE(struct name *head, struct type *elm) \
{ \
    struct type *child, *parent, *old = elm; \
    int color; \
    if (RB_LEFT(elm, field) == NULL) \
        child = RB_RIGHT(elm, field); \
    else if (RB_RIGHT(elm, field) == NULL) \
        child = RB_LEFT(elm, field); \
    else { \
        struct type *left; \
        elm = RB_RIGHT(elm, field); \
        while ((left = RB_LEFT(elm, field)) != NULL) \
            elm = left; \
        child = RB_RIGHT(elm, field); \
        parent = RB_PARENT(elm, field); \
        color = RB_COLOR(elm, field); \
        if (child) \
            RB_PARENT(child, field) = parent; \
        if (parent) { \
            if (RB_LEFT(parent, field) == elm) \

```

```

    RB_LEFT(parent, field) = child; \
else \
    RB_RIGHT(parent, field) = child; \
    RB_AUGMENT(parent); \
} else \
    RB_ROOT(head)
= child; \
if (RB_PARENT(elm, field) == old) \
    parent = elm; \
(elm)->field = (old)->field; \
if (RB_PARENT(old, field)) { \
    if (RB_LEFT(RB_PARENT(old, field), field) == old)\
        RB_LEFT(RB_PARENT(old, field), field) = elm;\
    else \
        RB_RIGHT(RB_PARENT(old, field), field) = elm;\
    RB_AUGMENT(RB_PARENT(old, field)); \
} else \
    RB_ROOT(head) = elm; \
    RB_PARENT(RB_LEFT(old, field), field) = elm; \
    if (RB_RIGHT(old, field)) \
        RB_PARENT(RB_RIGHT(old, field), field) = elm; \
    if (parent) { \
        left = parent; \
        do { \
            RB_AUGMENT(left); \
        } while ((left = RB_PARENT(left, field)) != NULL); \
    } \
    goto color; \
} \
parent = RB_PARENT(elm, field); \
color = RB_COLOR(elm, field); \
if (child) \
    RB_PARENT(child, field) = parent; \
if (parent) { \
    if (RB_LEFT(parent, field) == elm) \
        RB_LEFT(parent, field) = child; \
    else \
        RB_RIGHT(parent,
field) = child; \
    RB_AUGMENT(parent); \
} else \
    RB_ROOT(head) = child; \
color: \
if (color == RB_BLACK) \
    name##_RB_REMOVE_COLOR(head, parent, child); \
return (old); \
} \
\

```

```

/* Inserts a node into the RB tree */ \
attr struct type * \
name##_RB_INSERT(struct name *head, struct type *elm) \
{ \
    struct type *tmp; \
    struct type *parent = NULL; \
    int comp = 0; \
    tmp = RB_ROOT(head); \
    while (tmp) { \
        parent = tmp; \
        comp = cmp(elm, parent); \
        if (comp < 0) \
            tmp = RB_LEFT(tmp, field); \
        else if (comp > 0) \
            tmp = RB_RIGHT(tmp, field); \
        else \
            return (tmp); \
    } \
    RB_SET(elm, parent, field); \
    if (parent != NULL) { \
        if (comp < 0) \
            RB_LEFT(parent, field) = elm; \
        else \
            RB_RIGHT(parent, field) = elm; \
        RB_AUGMENT(parent); \
    } else \
        RB_ROOT(head) = elm; \
    name##_RB_INSERT_COLOR(head, \
    elm); \
    return (NULL); \
} \

```

```

/* Finds the node with the same key as elm */ \
attr struct type * \
name##_RB_FIND(struct name *head, struct type *elm) \
{ \
    struct type *tmp = RB_ROOT(head); \
    int comp; \
    while (tmp) { \
        comp = cmp(elm, tmp); \
        if (comp < 0) \
            tmp = RB_LEFT(tmp, field); \
        else if (comp > 0) \
            tmp = RB_RIGHT(tmp, field); \
        else \
            return (tmp); \
    } \
    return (NULL); \
} \

```

```

}    \
    \
/* Finds the first node greater than or equal to the search key */\
attr struct type *    \
name##_RB_NFIND(struct name *head, struct type *elm) \
{    \
    struct type *tmp = RB_ROOT(head); \
    struct type *res = NULL; \
    int comp; \
    while (tmp) { \
        comp = cmp(elm, tmp); \
        if (comp < 0) { \
            res = tmp; \
            tmp = RB_LEFT(tmp, field); \
        } \
        else if (comp > 0) \
            tmp =
RB_RIGHT(tmp, field); \
        else \
            return (tmp); \
    } \
    return (res); \
}    \
    \
/* ARGSUSED */    \
attr struct type *    \
name##_RB_NEXT(struct type *elm) \
{    \
    if (RB_RIGHT(elm, field)) { \
        elm = RB_RIGHT(elm, field); \
        while (RB_LEFT(elm, field)) \
            elm = RB_LEFT(elm, field); \
    } else { \
        if (RB_PARENT(elm, field) && \
            (elm == RB_LEFT(RB_PARENT(elm, field), field))) \
            elm = RB_PARENT(elm, field); \
        else { \
            while (RB_PARENT(elm, field) && \
                (elm == RB_RIGHT(RB_PARENT(elm, field), field))) \
                elm = RB_PARENT(elm, field); \
            elm = RB_PARENT(elm, field); \
        } \
    } \
    return (elm); \
}    \
    \
/* ARGSUSED */    \
attr struct type *    \

```

```

name##_RB_PREV(struct type *elm) \
{ \
    if (RB_LEFT(elm, field)) { \
        elm = RB_LEFT(elm, field); \
        while (RB_RIGHT(elm, field)) \
            elm = RB_RIGHT(elm, field); \
    } \
    else { \
        if (RB_PARENT(elm, field) && \
            (elm == RB_RIGHT(RB_PARENT(elm, field), field))) \
            elm = RB_PARENT(elm, field); \
        else { \
            while (RB_PARENT(elm, field) && \
                (elm == RB_LEFT(RB_PARENT(elm, field), field))) \
                elm = RB_PARENT(elm, field); \
            elm = RB_PARENT(elm, field); \
        } \
    } \
    return (elm); \
} \
\
attr struct type * \
name##_RB_MINMAX(struct name *head, int val) \
{ \
    struct type *tmp = RB_ROOT(head); \
    struct type *parent = NULL; \
    while (tmp) { \
        parent = tmp; \
        if (val < 0) \
            tmp = RB_LEFT(tmp, field); \
        else \
            tmp = RB_RIGHT(tmp, field); \
    } \
    return (parent); \
}

#define RB_NEGINF -1
#define RB_INF 1

#define RB_INSERT(name, x, y) name##_RB_INSERT(x, y)
#define RB_REMOVE(name, x, y) name##_RB_REMOVE(x, y)
#define RB_FIND(name, x, y) name##_RB_FIND(x, y)
#define RB_NFIND(name, x, y) name##_RB_NFIND(x, \
y)
#define RB_NEXT(name, x, y) name##_RB_NEXT(y)
#define RB_PREV(name, x, y) name##_RB_PREV(y)
#define RB_MIN(name, x) name##_RB_MINMAX(x, RB_NEGINF)
#define RB_MAX(name, x) name##_RB_MINMAX(x, RB_INF)

```



```

#define RB_FOREACH(x, name, head) \
for ((x) = RB_MIN(name, head); \
(x) != NULL; \
(x) = name##_RB_NEXT(x))

#define RB_FOREACH_FROM(x, name, y) \
for ((x) = (y); \
((x) != NULL) && ((y) = name##_RB_NEXT(x), (x) != NULL); \
(x) = (y))

#define RB_FOREACH_SAFE(x, name, head, y) \
for ((x) = RB_MIN(name, head); \
((x) != NULL) && ((y) = name##_RB_NEXT(x), (x) != NULL); \
(x) = (y))

#define RB_FOREACH_REVERSE(x, name, head) \
for ((x) = RB_MAX(name, head); \
(x) != NULL; \
(x) = name##_RB_PREV(x))

#define RB_FOREACH_REVERSE_FROM(x, name, y) \
for ((x) = (y); \
((x) != NULL) && ((y) = name##_RB_PREV(x), (x) != NULL); \
(x) = (y))

#define RB_FOREACH_REVERSE_SAFE(x, name, \
head, y) \
for ((x) = RB_MAX(name, head); \
((x) != NULL) && ((y) = name##_RB_PREV(x), (x) != NULL); \
(x) = (y))

#endif /* _SYS_TREE_H_ */
# Contributor: Dhruvin Gandhi <contact@dhruvin>
# Maintainer: Patrycja Rosa <alpine@ptrcnull.me>
pkgname=py3-license-expression
_pkgname=license_expression
pkgver=30.4.0
pkgrel=0
pkgdesc="Library to parse, compare, simplify and normalize license expressions"
url="https://github.com/nexB/license-expression"
arch="noarch"
license="Apache-2.0"
depends="python3 py3-boolean.py"
makedepends="py3-setuptools py3-setuptools_scm py3-gpep517 py3-wheel"
checkdepends="py3-pytest py3-pytest-xdist"
subpackages="$pkgname-pyc"
source="https://files.pythonhosted.org/packages/source/l/${_pkgname}/${_pkgname}-${pkgver}.tar.gz"

```

```

builddir="$srcdir/${_pkgname}-${pkgver}"

build() {
    gpep517 build-wheel \
        --wheel-dir .dist \
        --output-fd 3 3>&1 >&2
}

check() {
    python3 -m venv --clear --without-pip --system-site-packages .testenv
    .testenv/bin/python3 -m installer .dist/*.whl
    .testenv/bin/python3 -m pytest
}

package() {
    python3 -m installer -d "$pkgdir" \
        .dist/*.whl
}

sha512sums="
cc7cd6b5bd8ea4c99b66f074871ffd7cc78b3e8b1b0d3afd9b95efdb7147c8293db2fac977d684fc34d3d60bd79066a06
dc2bff0a38b130d9d83c63538502db1
    license_expression-30.4.0.tar.gz
"

```

1.76 curl 8.12.1-r1

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1.77 cJSON 1.7.18-r0

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This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit
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This product includes software written by Tim Hudson (tjh@cryptsoft.com).

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=====

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- * [Rafael Leal Dias](https://github.com/rafaeldias)
- * [Randy](https://github.com/andy408)
- * [raiden00pl](https://github.com/raiden00pl)
- * [Robin Mallinson](https://github.com/rmallins)
- * [Rod Vagg](https://github.com/rvagg)
- * [Roland Meertens](https://github.com/rmeertens)
- * [Romain Porte](https://github.com/MicroJoe)
- * [SANJEEV BA](https://github.com/basanjeev)
- * [Sang-Heon Jeon](https://github.com/Intuition)
- * [Sayan Bandyopadhyay](https://github.com/saynb)
- * [Simon Sobisch](https://github.com/GitMensch)
- *
- [Simon Ricaldone](https://github.com/simon-p-r)
- * [Stoian Ivanov](https://github.com/sdrsdr)
- * [SuperH-0630](https://github.com/SuperH-0630)
- * [Square789](https://github.com/Square789)
- * [Stephan Gatzka](https://github.com/gatzka)
- * [Tony Langhammer](https://github.com/BigBrainAFK)
- * [Vemake](https://github.com/vemakereporter)
- * [Wei Tan](https://github.com/tan-wei)

- * [Weston Schmidt](https://github.com/schmidtw)
- * [xiaomianhehe](https://github.com/xiaomianhehe)
- * [yangfl](https://github.com/yangfl)
- * [yuta-oxo](https://github.com/yuta-oxo)
- * [Zach Hindes](https://github.com/zhindes)
- * [Zhao Zhixu](https://github.com/zhaozhixu)
- * [10km](https://github.com/10km)

And probably more people on [SourceForge](https://sourceforge.net/p/cjson/bugs/search/?q=status%3Aclosed-rejected+or+status%3Aclosed-out-of-date+or+status%3Awont-fix+or+status%3Aclosed-fixed+or+status%3Aclosed&page=0)

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